NEW ENGLAND FARMER

DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

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JOEL NOURSE, PROPRIETOR. OFFICE...13 COMMERCIAL ST. SIMON BROWN, EDITOR. FRED'K HOLBROOK, HENRY F. FRENCH, } ASSOCIATE EDITORS.

MAY.

"O! knew he but his happiness, of men
The happiest he, who, far from public rage,
Deep in the vale with a choice few retir'd,
Drinks the pure pleasures of the rural life!
Rich in content, in nature's society rich,
In herbs and fruits, whatever greens the Spring,
When Heaven descends in showers or bends the boughs,
When summer reddens and when autumn beams,
Or in the wintry glebe whatever lies
Conceal'd, and fattens with the richest sap,
These are not wanting:—
This is the life which those who fret in guilt,
And guilty cities never knew; the life
Led by primeval ages uncorrupt,
When angels dwelt, and God himself with man."

MAY, more than any other month, awakens and kindles those emotions of the heart which beat in unison with the changes and appearances of Nature. The pleasures of rural life, and especially those of spring, have been a standing theme of admiration, from time immemorial.

Wherever the harmonizing influences of civilization have been felt, there have not been wanting those who delight to sing, paint or chisel the joys of husbandry.

The Idyls of Theocritus and the Bucolics of Virgil are imperishable monuments of the high estimation in which agricultural pursuits were held by the most enlightened nations of antiquity.

Cincinnatus deemed it an honor to exchange the helm of state, to which he had been called by a nation's voice, and which he had so conducted as to secure a nation's approbation, for the plow, and the purer and more simple pleasures of rustic life.

The most successful efforts of genius have been expended upon rustic simplicity.

Among enlightened nations of modern times, no order of poetry has so many admirers as pastoral, no style of painting awakens such enthusiasm, and commands such universal admiration, as landscape.

The merchant, amid the toils and perplexing cares of city trade, sighs for the sweets of country life,—longs to hold communion with nature in her rustic retreats. With the laboring man, the mechanic, and the artisan, the height of ambition of his being is to gain undisputed possession of a "little farm well tilled;" and the professional man and the man of letters are ever looking forward with pleasing anticipations, to the time, when they may be permitted to enjoy a dignified retirement in a sequestered spot, where art is less conspicuous than nature, and where they can contemplate the varying aspects of country life, ramble over sunny hills or meditate by purling brooks, or find unalloyed enjoyments in the cultivation of the soil and the growth and care of the inferior animals dependent upon them.

Indeed, nearly all our ideas of comfort, of calm satisfaction, are associated with country life. The paradise in which Adam and Eve found their chief joys, was a garden, in which grew every conceivable variety of plant. Listen to their charming conversation:—

Adam to Eve—

"To-morrow, ere fresh morning streak the east
With first approach of light, we must be risen,
And at our pleasant labor to reform
Yon flowery arbors, yonder alleys green.
Our walk at noon, with branches overgrown,
That mock our scant manuring, and require
More hands than ours to lop their wanton growth;

Those blossoms, also, and those dropping gums,
That lie bestrown, unsightly and unsmooth,
Ask riddance, if we mean to tread with ease:
Meanwhile, as Nature wills, night bids us rest."

Eve to Adam—

"With thee conversing I forget all time;
All seasons and their change, all please alike.
Sweet is the breath of morn, her rising sweet,
With charm of earliest birds; pleasant the sun,
When first on this delightful land he spreads
His orient beams, on herb, tree, fruit and flower,
Glistering with dew; fragrant the fertile earth
After soft showers; and sweet the coming on
Of grateful evening mild; then silent night,
With this her solemn bird, and this fair moon,
And these the gems of Heaven, her starry train:
But neither breath of morn, when she ascends
With charm of earliest birds; nor rising sun
On this delightful land; nor herb, fruit, flower,
Glistering with dew; nor fragrance after showers;
Nor grateful evening mild; nor silent night,
With this her solemn bird, nor walk by moon,
Or glittering starlight, without thee is sweet."

Such are the scenes which yield a calm satisfaction that is undying—that time, nor distance, nor circumstances, can ever efface; they make an impression that outlives all the gratifications of pomp, or power, or pecuniary gain, and nestle and live in the heart when the applause of the world falls cold and lifeless upon it.

What imagination is so fertile as to conjure up a paradise, where there is neither tree, nor shrub, nor flower,—where neither vegetable color nor odor regale the senses,—where Flora and Pomona are unknown goddesses,—where nought meets the eye, but a boundless waste of sterility.

Sensibility to emotions of beauty and grandeur and sublimity is innate in the human breast. Amid the ever-shifting scenes which nature presents, objects are constantly occurring which awaken these emotions and give a charm to life, to which the shop, the counting-room, the studio, the cloister and the forum are all strangers.

The tiller of the soil is the true nobleman He receives the bounties of Providence direct from the hand of the Giver. He is daily conversant with scenes of unsurpassed beauty and grandeur, and unless more stupid than the ox which he feeds and drives, must be constrained to exclaim, in view of such displays of wisdom and benevolence, "What a stupendous power and boundless love does my Father possess who made and gives them all!"

Who, then, would not be a farmer? Why should not he who is blessed in the possession of a few prolific acres, cultivated with skill, and yielding the staple articles of subsistence, be content therewith? Why should farmers' sons be so ready and anxious, even, to quit the home of their youth and wander from all early associations, to become involved in the intricacies of "trade," and lead a life of uncertain gain, and of feverish disquietude? Why should parents urge this course, as too many do, with the gloomy fact before them, that less than five in one hundred who engage in mercantile life succeed in the business they have chosen?

Man made the city, but God made the country. Great cities are great sores upon the body politic; and were it not for the sanitary influences which flow in from the country, they would become so greatly demoralized as to be exterminated by their own corruption. Our country's hope, like that of every other republic, is in her yeomanry. To the rural districts, to the hard-handed, clear-headed, high moral toned conservative cultivators of the soil, patriotism must look for protection and the perpetuity of our free institutions.

Hail, then, lovely *May*, most inspiring of the months. We have welcomed all the early harbingers of spring that dared to peep from their sunny nooks in *March;* they were few and shy heralds, but were beautiful and breathing fragrance, and imparting joy while winter lingered about them. *April*, too, has passed, watering and refreshing the earth, so that May, with her warm sun and fresh flowers, should be as strong as it is lovely, in order to complete the work she has to do.

"Meadows fresh with Daisies trim,
Shady banks with Harebell blue,
Groves where birds are carolling,
Towering Pines where Turtles coo."

MASSON'S OIL FOR WOUNDS, &c.

I have long been in possession of a recipe for the cure of corked hoofs and wounds on horses

Take 2 ounces of rock salt;
2 ounces of copperas;
2 ounces of white vitriol;
8 ounces of sale molasses;
½ pint of linseed oil;
1 pint of chamber lye.

Pulverize and boil the above together fifteen minutes; then add 4 ounces spirits of turpentine and 1 ounce of oil of vitriol, and bottle it up, and when cold it is fit for use. Shake the bottle before using it. Bathe the wound once or twice a day, and dry it in with a hot shovel.

I have kept and used this liniment, which is here known as "Masson's Oil," for the past ten years, to a good account.—*A. D. Brown, in Country Gentleman.*

SOIL CULTURE.—This is the title of a new work by J. H. WALDEN, A. M., containing a comprehensive view of Agriculture, Horticulture, Pomology, Domestic Animals, Rural Economy and Agricultural Literature. Illustrated by numerous engravings. New York: B. F. Chappell & Co. Persons cultivating the soil will find this a useful book, full of useful suggestions, and given in a brief and comprehensive manner.

For the New England Farmer.

A DAY AT BRIGHTON.

Thursday, or market day at Brighton, is distinctly announced, by the many carriages which are seen rattling along the road; these are usually distinguished by the absence of ladies, and sometimes still more conspicuously by the addition of a lame or blind horse hitched on behind, while a yoke of oxen or a couple of cows, sound or unsound, frequently bring up the rear. As we approach still nearer to Brighton, the number of carriages increase, fast horses rush past us at every turn, while the jolly farmer with his fat and contented horse may be seen plodding slowly and happily along. The rattling of carriages, the lowing of cattle, and the bleating of sheep announce our entrance to the great cattle market of New England.

Having put up our tired horse at the stable near the Brighton Hotel, where a hundred other equally tired horses are hurriedly eating their provender, the first thing that attracts our attention, (if it is in the fall of the year,) is, the great quantity of goods offered for sale in the open air on the piazza of the Brighton Hotel, and in front of the neighboring stores. The voice of the auctioneer is distinctly heard above all the bustle and confusion of the place; and, although very many useful articles are sold here very cheap, yet sometimes the buyer pays pretty dear for his whistle. Good leather trunks have been sold here for the low price of two dollars, but they afterward proved to be made of brown paper; and woolen cloth for twenty-five cents per yard, but it afterwards proved to be made from old rags.

As it is near eleven o'clock, we will next visit the place where any quantity of old, lame, blind or diseased horses may be bought at prices varying from seventy-five cents to five dollars, and where better ones may be bought from that sum, up to any price you wish. Some apparently good horses are sold here very cheap, but sometimes horses are sold here, having various diseases, from glanders down; and having all manner of ugly tricks, from kicking wagons to pieces up. We think there must be some risk in purchasing here, without alluding to the chance of getting a stolen horse.

We will now pass to the cattle-yards, where we see superior beeves, strong working oxen, handsome heifers and steers, beautiful cows, innocent lambs and fat sheep, and a large number of swine, judging from the music they make. With these, also, there is much inferior stock, and sometimes a diseased or an ugly cow, or an ox that has been strained by overdrawing, or bitten by a mad dog, is skilfully sold to an unsuspecting purchaser. After having considered all these things, we conclude to purchase, and, in our haste to do so, we run against a couple of Irish women who are buying a pig; attempting to apologize, we stumble over the pig himself. We pick ourselves up, and see a mulatto sitting on a plank, playing on a banjo and singing about glorious Brighton day.

We next buy a yoke of oxen, very cheap! The fellow who sold them seemed to be in a great hurry, he takes his money and runs. One ox turned out to be very badly strained by overdrawing, and we believe the name of the disease which it caused, is termed red water. We soon ascertain that the cattle had been sold there four times before, and were pretty well known by those who frequent Brighton. We sold them to a person who was well posted up in Brighton affairs for twenty dollars less than we gave, and as one ox was worthless, we think we made a good trade. He sold them the next market day at a fair profit. We then bought another yoke of cattle which proved well, and we returned home apparently satisfied with our day's labor. We conclude this imperfect but truthful sketch with the wish, that the farming readers of the *Farmer* have all made as many good trades in Brighton as the undersigned, and not half as many poor ones.

J. N. S.

South Walpole, Mass.

REMARKS.—We long since learned that *it is not all gold that glitters*, nor can it be all sham or false at Brighton. Would it not be well for our correspondent to give some of the real merits of Brighton Market?

HOGS VS. DOGS.

"What a dog lives upon will keep a hog." If anybody doubts the truth of the saying, let him kill his useless dog, and put a pig in the pen and give it the dog's allowance. He will find in a few months that he has a fine fat porker fit to be eaten, a use the dog could not be possibly applied to by any Christian man. There are too many dogs in the country, by far too many—if they had all been killed a year ago, there might be two hundred pounds of good fat pork in the country to balance against every dog so set aside, which would be no inconsiderable item in the present scarcity of supplies. Dogs are a nuisance, and should be taxed. While every farmer keeps his dog, and every slave his dog, and every free negro his two or three dogs, sheep stand a poor chance to get through the world and yield their annual fleece with untorn throats. The increase of the dog population accounts for the scarcity of sheep.—*N. C. Planter.*

MANURES.

Mr. T. W. Field, in a paper read before the Farmer's Club of the American Institute, on manures, states the following propositions:

1. Manure does not waste, so long as it is unfermented or undissolved, and these conditions may be effected by drying or saturation.

2. Fresh manure is unfit for food for plants.

3. Fermenting manure, in contact with inert matter, has the power of neutralizing vicious properties, such as the tannic acid of peat, and making it a fertilizer.

4. Manure wastes in two ways—the escape of gas, and the dissolving of its soluble salts.

5. The creative power of manure, mixed with other substances, is capable of multiplying its value many times.

6. The value of manure to crops is in proportion to its divisibility through the soil. The golden rule of farming should be—small quantities of manure thoroughly divided and intermingled with the soil.—*American Farmer.*

For the New England Farmer.

PUMPKINS AMONG CORN.

MR. EDITOR:—For the benefit of your Vermont correspondent, I will give you an item from my experience. Some fifteen years since, I planted three-fourths of an acre of corn in one piece, on one-fourth acre of which I planted pumpkins; the land was manured highly, and gave a fine growth of both corn and pumpkins, but at harvest, the vines had so overrun the corn, that I was obliged to leave that portion until the frost had killed them, by which the fodder was reduced in value at least half, and when the corn was husked, I found the ears shorter, badly filled at the tips, and much lighter than where no pumpkins grew.

This is the only instance in which I have seen a fair trial of both methods on the same piece, having discontinued the practice of planting mixed field crop; but I can see but one advantage in planting corn and pumpkins together, viz., when the bugs destroy the vines, as they often do, the corn is ready to occupy the ground, all the advantage from a variety of crop being obtained quite as readily, by rotation in different seasons; on the other hand, I think the vines produce all the bad effect of weeds, by drawing from the soil the nutriment which ought to go to fill out the grain, and they shade the ground late in the season, thereby preventing the ripening of the corn, quite an important item in our short summers; besides, if the land is prepared as it should be for corn, the vines will pull down and tie it together, so that both crops must of necessity be harvested at once, for all which, in my opinion, nothing like an adequate return will be made in the crop of pumpkins.

As a field crop for feeding purposes, I think the pumpkin will not pay; but if your Vermont friend cannot do without pumpkin pies, I would advise him to plant separate from other crops, or at least near the edge of his corn, where the vines will run out on the grass land, or better still, supply their place with the Hubbard squash; and here let me suggest, if any of your friends have still any of last year's crop of this delicious vegetable, that they should try baking instead of boiling it. It will peel readily from the shell and is much sweeter and drier. WM. F. BASSETT.

Ashfield, Feb., 1858.

HEDGES AND EVERGREENS.

It is doubtful whether hedges will ever become common in New England as division fences, but they will be used by persons of taste as lines of division wherever they will become objects of ornament and utility at the same time. Between well kept grounds about the dwelling, and a dusty highway, or for separating a lawn from plowed fields, or screening unsightly objects from the windows, hedges answer an admirable purpose.

In the western States, however, where wood and stone are both scarce and costly for fencing materials, the hedge, or iron, must be resorted to, if the practice of the older States becomes prevalent, of each man having his farm enclosed by itself. Indeed, on the prairies, hedges would be useful not only as fences, but as affording shade for man and beast, and as a protection against the winds which are usually blowing unobstructed over those vast and treeless plains. Hedges, therefore, will be useful in one form or another, over the whole extent of our country.

Such being the case, we are glad to see a work on the subject of *Hedges and Evergreens*, which will point the way to their successful culture.

The book with the title which stands at the head of this notice purports to be 'A complete manual for the cultivation, pruning and management of all plants suitable for American hedging; especially the Maclura, or Osage Orange;—and fully illustrated with engravings of plants, implements and processes. To which is added a Treatise on Evergreens; their different varieties—their propagation, transplanting, and culture in the United States." By JOHN A. WARDER, M. D., Editor of *Western Horticultural Review*, President of the Cincinnati Horticultural Society, &c. A. O. Moore, Agricultural Book publisher, New York. The work contains a chapter on the *jurisprudence of fences*, giving an outline of the laws relating to fences in the several States, and contains much information of value to those engaged in the subjects of which it treats. It is printed in Mr. Moore's beautiful style, and illustrated with numerous engravings, and for sale by A. WILLIAMS & Co., Booksellers, 100 Washington Street, Boston.

For the New England Farmer.

CONCENTRATED MANURES.

MR. EDITOR:—Much has been said and written within the few past years, on the value of concentrated manures, guano, phosphate, &c., and I cannot doubt that in a multitude of cases the money expended for them has proved a remunerative outlay; and yet I strongly suspect that if these highly recommended fertilizers which have been purchased by the farmers of this State, could be traced to their results, we should find that, like lottery tickets, too many of them have drawn blanks for the *aggregate* profit of the purchaser.

With manures, as with many other things, the fact that they come from a distance and cost a great deal of money, seems to give them, in the estimation of some, an additional recommendation.

Do not infer from the above remarks that I have burnt my own fingers in the purchase and use of these fertilizers. I have tried them to some extent, and carefully noted the result; yet I cannot tell whether I have gained or lost by the operation. But my experiments have helped me in coming to the conclusion that the same expenditure in collecting materials from my own premises to act as absorbents and swell the compost heap, would have proved a more profitable investment. Why, sir, just look at it. Take the article of guano. Two bags at 150 pounds each, would cost me, delivered, at least ten dollars.

These two bags would just about fill a common flour-barrel. Now let any industrious farmer expend five dollars in labor with his own help and team, in procuring swamp-muck, if within reasonable distance; and five dollars more in collecting brakes and other materials from the pasture, roadside or wood-lot; and I think he will have a pile by the side of which the barrel of guano will be small in size and in value; and the ten dollars be kept nearer home.

While ammonia is the principal element of value in concentrated manures, those from the stable and hog-yard, contain in due proportion, more of the requisite food for plants, and besides have more of *bulk*,—an important quality for most of our soils, rendering them more pervious to heat and atmospheric influences.

There are few farmers who so understand how to use these manures, and their adaptation to particular soils, as to make the purchase of them, to any great extent, a safe operation, unless their circumstances are such that they can afford to fail in the experiment.

I believe that many kinds of concentrated manures will yet find a permanent place among the farmers as reliable auxiliaries; but they will be like the *mint* the *anise* and the *cummin*, compared with what he may manufacture on his own premises. J. WOOD.

Royalston, March 6, 1858.

For the New England Farmer

PLEA FOR THE ROBIN.

BY WILSON FLAGG.

Certain cultivators, annoyed by the depredations committed by the common robin upon their cherry trees, have lately discovered, as they suppose, that this bird is of no service to agriculture. They accuse him of living upon fruit and earthworms alone, alleging that he destroys but very few of the insects which are injurious to vegetation. Herein they are led astray by a very egregious error, and one that might produce incalculable mischief were they to succeed in convincing the public that the robin is an enemy to the garden and the farm. Nothing can be further from the truth. It is in fact one of the most valuable of our birds, exceeded only by the small woodpecker and the chickadee in the service he performs by checking the multiplication of noxious insects. Let us make a few inquiries respecting his habits.

The robin is not a searcher for small insects, that live upon the bark and leaves of trees. He seeks his food like the other thrushes, mostly upon the ground; and is often seen, after a rain, pulling out earth-worms from their holes. This circumstance has led many to suppose that he confines himself to these. It is true that he devours great quantities of earth-worms, but they are only a small part of his diet. He also consumes large numbers of those grubs which occasionally appear on the surface of the soil. These are taken only by certain species of birds. Neither the woodpecker, nor the chickadee, nor the wax-wing, nor any species of swallow, nor the king-bird, nor any of the fly-catchers, nor that excellent friend of the garden, the golden oriole, take their food from the ground. What provision then has nature made to rid the surface of the soil of its noxious insects? Among the small birds the thrushes seem to be designed for this special purpose; and of all the species of this tribe none is more beneficial than the common robin.

What constitutes the food of this bird during eight months of the year when there are no fruits in the garden or pasture? It cannot be said that he lives upon seeds, for he refuses seeds of all kinds unless they are crushed and made into a dough; and if a young robin is fed chiefly on farinaceous food in a state of confinement, he will sicken and die. The plain inference is, that when he cannot obtain fruit he lives upon worms and insects. If angle-worms are the principal part of his diet, how does he continue to obtain them when the superficial soil is dry, and they are lodged in the subsoil? He cannot get them at any time except when they are either wholly or partially above ground. He cannot dig or scratch for them, and must consume other insects or he would starve. And when we consider the vast multitudes of robins in our land, and their voracious appetites, when we consider likewise that they live exclusively upon insects and worms, when fruit is not to be obtained, we must admit that the quantity of crawling vermin consumed by these birds must be immense and altogether beyond calculation. There are no other birds that could supply their place, since the other thrushes are too shy to frequent our tilled grounds. The larks, the snipes and blackbirds are likewise all too shy to perform an equal amount of the same service.

If the robins were to be exterminated the mischievous consequences that would ensue could never be repaired except by restoring them, certainly not within a period of twenty years. Let us enumerate some of the insects that are kept in check by the labors of the robin. He destroys nearly all kinds of worms, grubs and caterpillars that live upon the green sward and the cultivated soil; and large quantities of crickets and grasshoppers before they have become perfect insects. The grubs of locusts, of harvest-flies and of beetles, which are turned up by the plow or the hoe, and the pupæ of the same when emerging from the soil; apple worms when they leave the fruit and crawl about in quest of a new shelter, and those subterranean caterpillars or cutworms, that come out of the earth to take their food; all these and many others are eagerly devoured by the robin. The cutworms emerge from the soil during the night to seek their food, and the robin, which is one of the earliest birds to go abroad in the morning, is very diligent at the dawn of day in hunting for these vermin before they have gone back into their retreat. The number of these destructive grubs is immense.

"Whole cornfields," says Dr. Harris, "are sometimes laid waste by them. Cabbage-plants, till they are grown to a considerable size, are very apt to be cut off and destroyed by them. Potato vines, beans, beets and various other culinary plants suffer in the same way. The products of our flower-gardens are not spared; asters, balsams, pinks and many other kinds of flowers are often shorn of their leaves and of their central buds, by these concealed spiders."—*Report, page* 343. The services of the robin in destroying these alone would more than pay for all the fruit they devour. Indeed, during the breeding season, a

robin is seldom seen without one of these caterpillars or some similar grub in his mouth, which he designs for his young; and as the robin often raises three broods of young during the season, his species must destroy more of this class of noxious insects than almost all other birds together.

It must be idle to dispute the fact that in certain places the robins are very mischievous in their depredations upon the cherry trees. There is one good remedy for this evil, which was suggested some weeks since by a correspondent of the *Farmer*. This remedy is to plant a greater quantity of cherry trees; for it will be found that wherever there is a great abundance of this fruit the robins do comparatively but little damage. One very important cause of their depredations is the destruction of the blueberry pastures, which would supply them with large quantities of berries about cherry time. It is precisely in those sections of the country, as in Cambridge and the suburbs of Boston, where the blueberry bushes have been extirpated from the wild lands, we hear the most complaint against the robin. Our farmers, when they clear a whortleberry pasture, should transplant all the blueberry bushes to the sides of the walls and fences, to supply the frugiverous birds with berries, and thereby divert them from the gardens. There are thousands of miles of stone wall, within two hours walk from Boston, which ought to be bordered with blueberry bushes and amelanchiers, (June berries,) where without occupying any valuable space they would feed the birds and produce tons of berries, to employ the diligent hands of women and children of poor families, who would gather them for the market. Let those horticulturists who have conceived a prejudice against the robin, instead of petitioning the Legislature to remove the legal protection that new exists in favor of this bird, petition the authorities of the city of Boston to appropriate a few thousand dollars for the planting of blueberry bushes and amelanchiers by the sides of fences in all pasture lands within five miles of the city; and after the work is accomplished we shall hear no more complaints of the robin and the cedar-bird.

For the New England Farmer.

MUD FROM THE MARSHES.

From the *salt marshes* I mean—for every one knows, that the mud from swamps and fresh meadows is more or less valuable as material for compost, according to the position in which it is found, and the time it has been accumulating. When I heard a distinguished gentleman inquire, at a late farmers' meeting in the State House, as to the value of this *marsh mud*, many cords of which he had seen thrown into piles from the ditches cut to drain the marshes, I was disposed to answer his inquiry, and say it was *little worth*. Such was my impression at the time. And such I have since found is the estimate of it by those who own marshes, and have handled this substance. They compare it with the sods gathered from peat meadows—it helps to fill up—but has very little of fertilizing material about it. It is not every substance that is carried to the pig-pen or the barn-yard, that helps to increase the pile of manure, but it is those substances only, that have in them the right kind of material. P.

For the New England Farmer.

CRANBERRIES.

FRIEND BROWN:—I catch up my pen to say a hasty word upon the culture of this berry.

I have seen inquiries frequently made through the *Farmer*, in reference to the best modes of cultivation, &c. My own experience teaches me a few facts.

1. Get rid of all stagnant water by shallow draining.

2. Destroy all vegetation by taking off the turf, or by cultivation.

3. Cover two inches deep with sand, if it is handy; if not, put in the vines, and let them take their chance with grass and weeds.

4. The large round berry is much the best.

5. So arrange your ditches, that a smart shower in summer will flood the vines for a day or so.

6. The vines should be flowed before it is cold enough to freeze the roots in autumn, and be kept flowed till mild weather in the spring.

I flow mine immediately after raking in the fall. By so doing I get all the scattering berries. I keep the water over and among my vines, till frosty nights have mostly disappeared in the spring. The water should be drawn off gradually, so that the vines may not be all exposed to the sun at once. A dressing of sand may be applied by spreading it on the ice in winter—say an inch deep—which will be of great benefit. Eight years ago last fall, I laid out some fifteen dollars in preparing ground, setting vines and fencing a worthless frog pond, containing one acre. Three-fourths of the ground is covered with vines; last fall, I raked twenty bushels of berries, for which I was offered three dollars per bushel, but declined the offer. The price declined also, and I wintered them over.

Please give me a few facts in your next paper, in reference to the milk business of Boston. Please give us the names of the companies running milk-cars into Boston—the names of the agents—what they pay—what they get, and a few of the milk-men's names who buy most largely of them. A particular and full history of the business would be exceedingly interesting, but a few facts just at this time will be thankfully received.

FEEDING HENS, ETC.

I have twenty-five hens. I get on an average twelve eggs a day. They roost in a warm place. I keep oats and ears of corn by them all the time, and pound up raw bones, clam-shells, oyster-shells and old white crockery once a week; give them drink every day, and occasionally give them buckwheat and sunflower seeds. Do they lay as well as they should, or can I feed them differently and make them lay better? GRANITE QUILL.

Weare, N. H.

REMARKS.—We will try to collect the facts about the milk business, and will publish if we obtain them. Your hens are very considerate and liberal. An egg every other day is *quite* liberal. From 140 to 150 eggs in a year from a good hen, and one well fed, is as many as you ought to expect, and is probably rather more than you will get.

For the New England Farmer.

LITTLE THINGS,

Or, a Walk in My Garden....No. 14.

GRAPE VINES.

A neighbor of mine says, that the sweet water grape should be pruned as early as the 1st of November, so that the wood will harden a little before covering them up. Otherwise they will bleed in the spring. I have been much pleased with your correspondent who writes on

THINGS I RAISE IN MY GARDEN.

This is just what we want; not only what we raise, but how we raise it to the best advantage. Professional gardeners have rare advantages in this respect, and can do much to elevate the condition of the multitude by making public their success. May your correspondent long continue to gratify us. But I see a red spot on one of my apple trees, and I am led to notice a little, but very important thing, and that is, a covering for

WOUNDS ON APPLE TREES.

I have tried several things with indifferent success, but have not seen anything so complete and easy as a little red ochre mixed with linseed oil into a paste and applied with a brush somewhat profusely but closely to the wood. It forms a yielding surface, a matter of importance—is impervious to rain, and completely protects the tree from bleeding. It injures my feelings very much to travel by an orchard and see the bark black and killed, by neglecting to cover the wounds. But I wish to say a word on cultivating

THE CRANBERRY.

Very many persons are deterred from cultivating the cranberry because they have been influenced by the complicated and expensive processes supposed to be necessary. I have eaten as handsome cranberries the present winter as I ever saw, which were raised in this manner. A man obtained some vines three years ago, in a neighboring town, took his hoe and proceeded to a wet spot in his grass field, struck in his hoe, put in a vine, trod it down with his foot, and so on, and then said to the grass and vines, do your best each for the mastery. The vines grew, and he has had cranberries to sell. Though this may not be the best method, yet I believe that they may be raised in thousands of places in sufficient quantities for family use without any particular difficulty. I do wish some of your correspondents would inform me through your paper about

MY ASPARAGUS BED.

Shall I, in making a new bed, transplant old roots, or young plants from the seed? I have plenty of each. Yours exceedingly little,

Bethel, Me., Feb. 25, 1858. N. T. T.

Remarks.—If you transplant the old roots you will obtain asparagus much sooner, of course, than you would from the young plants,—and we can see no reason why they would not be just as good.

Gophers.—Some years ago, the State of Iowa was nearly overrun by gophers; but at last it was discovered that the castor bean was an effectual remedy, and its use very much reduced the number of this mischievous pest. The method is, to plant the bean all over the land, about one bean to the square rod. It is supposed that the gopher is fond of the root, and eats it, and that it acts like physic or slow poison. At any rate, it exterminates the gophers. Whether it operates the same with squirrels, or whether any effectual remedy has been discovered for them, we are not informed, but hope if our readers know of any, they will inform us, and thus benefit all.—*Prairie Farmer.*

EXTRACTS AND REPLIES.

WEAKNESS IN LAMBS.

What is the cause and remedy for weakness in the backs and limbs of lambs?

I have twenty-four good northern ewes, three to five years old; eighteen have lambed and the lambs did very well until they were a few weeks old, and then they are taken while fat and smart, with this weakness, and die off suddenly, or remain lingering along. J. B. Ball.

Concord, Vt., March 2, 1858.

Remarks.— These ewes, as appears above, have dropt their lambs early, and while the weather is yet cold. The lambs are weak in the back and limbs. This is a sort of palsy, or partial suspension of nervous influence on the muscles of voluntary motion, and is a disease very liable to occur to young lambs just dropt, if exposed to cold. Ewes heavy with young should always have a warm dry place to retire to, as the lamb, perhaps, suddenly exchanges the temperature of the mother's womb, for one below the freezing point, and lies for hours on a bed of snow, becomes palsied, and perhaps never entirely recovers.

A lamb that has been exposed to cold and become chilled, should be placed in a basket, wrapped in warm woollens, and gradually brought near a fire; then administer a little warm gruel, with some ginger, in small quantity, and gently rub the surface with the warm hand. When the lamb has recovered a little return it to its mother, but in a place where it will not again become chilled.

—

BONE DUST ON CORN.

Will bone dust, if applied in the hill, produce any serious effects on corn or potatoes by coming in contact with the seed?

A GOOD FERTILIZER.

I have made a good fertilizer by mixing one part night soil, one of ashes and one of plaster together, two weeks before use. It can be applied on the seed without injury. It will push corn ahead faster than any other compost that I ever used. Emory Stone.

Auburn, Mass., February, 1858.

Remarks.—Bone dust applied to the hill and mixed a little with the soil will not prevent the germination of corn or potatoes—it probably would not if unmixed.

SWAMP MUCK—CROPS.

I have a tract of low brook meadows, a large part of which, back from the stream, is so covered in some places by white moss, and in others by meadow hardhack, that it is of little value in its present condition. Can you so describe the different qualities of muck, that a novice, like myself, can decide its value before it has been tested by experience?

What is the most feasible way of reclaiming such land as I have described? I will state that I have covered a few rods with sandy loam from an adjacent pasture, to the depth of three or four inches. On this I have laid some compost manure, which I intend to spread in the spring and seed it down with herds-grass and red-top. On another small piece I have spread loam at the rate of twenty loads to the acre, and have also dug over a small patch on which I mean to see if potatoes can be made to grow. J. WOODS.

Royalston, Feb., 1858.

REMARKS.—You have made a good beginning in the ditching you describe, and in the application of the sandy loam and compost manure; you will undoubtedly get good crops of grass. Potatoes grow finely on such lands, and so will most vegetables, as we have seen fine crops of cabbage, beets, &c., growing luxuriantly in the warm and porous muck beds. We cannot describe the different qualities of muck so as to be of service to you. If plants spring up and grow well on the ridges you have thrown up, it is evident that the muck is not hurtful. Spread some of it in different places on the uplands and watch its effects. You will undoubtedly find it profitable to haul up any quantity you can get.

—

COVERING ROOFS.

As a subscriber in your January number wishes to know the cheapest and best material for covering flat roofs, I send you the following as the best I am acquainted with. It is composed of equal parts, water, cement and coarse beach sand or gravel mixed up with proper ingredients, for which Mr. W. STERLING, of this place, obtained a patent about the year 1852–3. It is impervious to frost, sun, air or rain, and if properly laid on I believe will last a century. I have seen several roofs that have been on six or seven years, and covered a veranda myself last fall, the whole expense being (it is covered with cross wire before the mixture is put on) six cents per foot, including everything, cost of material and laying on, which I believe is forty per cent. less than tin to start with, and five times as durable.

Bridgeport, Ct., March, 1858. J. MOODY.

—

SEWING MACHINES—HILLING CORN.

One of your correspondents inquires about sewing machines. Let him look at *Wheeler & Wilson's* before he purchases. Grover & Baker's is a fine machine, but I prefer the shuttle stitch; most of the cheap machines are, I think, very imperfect and liable to get out of order. Most of them use but one thread, which is liable to rip. There is now a great variety of machines, and no one is excusable for letting his wife sew by hand if he is able to buy a machine.

HILLING CORN.

One writer advocates hilling corn three times. Is he aware that while his corn is throwing out roots higher upon the stalk every time he hoes, that the lower roots are dying, and that his corn is turning from a seedling plant to a layer? And that a field "hilled" very high will be blown to the grouud with a wind which a field cultivated level will stand with impunity? This is true in this section, and I guess elsewhere.

Cultivation, and frequent cultivation, is right; but no good farmer here, now, advocates the hilling process. D.

Middlesex Co., Ct., March 2, 1858.

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PAPERS ON THE POTATO ROT.

Has any advance, of late, been made in the discovery of the cause or causes, of what is generally termed the potato rot? Several years since, the community was deluged with theories upon this matter. The rot still continues, but the theories have *funked out*—to use a strong, but coarse expression.

My attention has recently been called to this matter, by inquiries for a certain letter written by the late Dr. T. W. Harris, of Cambridge, in which he clearly proved that certain insects of the beetle order, found upon the vines of the potato, were not the cause of the decay of the tubers or roots. And particularly, that the little black fly, or beetle, put forward by Mr. Whipple, of Lowell, as the cause, was entirely harmless of this offence. I have looked for these letters of Dr. Harris, (who was authority second to none other on whatever he presumed to speak,) but have not been able to put my hands upon them. If you can point to them you will confer a favor upon all who are interested in this subject—as every lover of good potatoes should be.

Very truly yours,

March, 1858. J. W. PROCTOR.

REMARKS.—We can give no clue to the papers wanted.

—

CURE FOR CHILBLAINS.

Draw off the stockings and sit with the feet to the fire as hot as it can be borne, until the feet feel easy. Repeat this every night, and cure will be certain. I have tried many things beside this without any good effect.

HILLY FARMS.

Is a farm located on a side-hill as desirable as one upon level ground? Is the manure likely to be lost on such lands, or is there any particular manure best adapted to it? A READER.

South Wrentham, Mass.

REMARKS.—Land of the same quality is certainly preferable on a level, or gently rolling surface, as it is more easily cultivated and is less likely to wash. Where a field on a side-hill is highly manured, you will usually find the land at the base quite productive, yielding large crops of grass or other crops that may be upon it. We are not aware that any special manure is better adapted to side-hill than to other lands

JOHNSON'S PATENT HOG TROUGH.

The ease and economy with which farm work may be done, like all other business, depends much upon the arrangements and conveniences that may exist for doing it. It is not only important to have buildings and implements well made, but they should be *convenient* for the uses for which they are intended. Even a pig's trough may have the requisites of convenience and economy, or it may not. Many a man is obliged to jump over into the quagmire of his sty and turn the trough "right side up," beating off the squealing and hungry swine with a cudgel or the toe of his boot, before he can empty his pail! Now if this is a luxury, it can only be enjoyed by a *rich* man, as no man of moderate means can afford it; it would be a loss of time, and probably of feed, that would impoverish him too fast.

We have introduced Mr. Johnson's new Pig Trough, above, that the reader may see for himself, whether its introduction will be any improvement in his mode of feeding swine. Without a trial of it, we cannot speak with certainty, but it seems to us that it is simple, cheap, and will prove effectual.

It is simply an elongated bowl, with a cover half as large and of the same shape, which may be opened or shut at pleasure. It is placed in the side of the sty, by cutting out a hole in the boards, and fastened with three bolts, and then the pig cannot get his feet into it, nor get the food out. It is made of cast iron, so that the swine will not eat it, *unless very hungry!*

In the figure above, the man has opened one bowl and the pig is taking his breakfast, while the other bowl is being filled the lazy pig seems inclined to lounge till the last moment.

AGRICULTURE IN MICHIGAN.

Our sister State, Michigan, has bounded by a single leap, as it were, not only into line with the elder States, but has already outstript them in some of the elements which must certainly be among the principal causes of intellectual wealth, prosperity and power. With a wisdom unexampled in this country, her people have taken hold of the great interest of agriculture with more energy and system than can be found in the legislative action of any other State in the Union.

We have now before us, through the attention of Mr. JOHN C. HOLMES, the accomplished Secretary of the State Society, the *eighth* volume of its agricultural transactions, containing nearly a thousand pages of printed matter. In the midst of this mass there are many papers of value, showing a large amount of observation, research and experiment, and an intimate, practical knowl-

edge of the business of the farm, as well as its theories, and its aspects in a theoretical and scientific point of view.

A paper on *The Potato*, another on *The Breeding and Management of Sheep*, on *Fruit Trees*, on *The Cultivation of Clover*, on *Thorough Draining*, and one by JOSEPH R. WILLIAMS, read at the Dedication of the Agricultural College. The paper that follows is the annual Address before the Calhoun County Agricultural Society, by Prof. J. E. TENNEY; it abounds with pleasant references and useful suggestions. Among other things, it gives the following striking comparison:

"Michigan has 56,243 square miles—Arkansas 52,198. Michigan has a population of 397,754; Arkansas 209,897; 47,100 of them are slaves. Michigan has property valuation, $59,787,295; Arkansas, $39,841,025. Michigan, value of farms, $51,874,446; Arkansas, $15,256,245. Michigan, improved land, $11,922,110; Arkansas, $6,647,969, value of slaves included. Michigan has an educational income of $214,717; Arkansas, $105,819. Michigan has 56 newspapers; Arkansas, 9. This last comparison is wonderful. But 9 newspapers in Arkansas! The literature of any country is a pretty safe index of its prosperity. No one can doubt but that the rich soil of Arkansas has a capacity equal to that of our own State, for farming interests, and it is equally certain, that Slavery paralyzes every species of improvement."

Then follows the address from Genesee County, by C. P. AVERY, also a capital paper. But why did they print it twice? If delivered before two societies, one insertion in the Transactions would seem to be enough. The address before the Jackson county society, by Rev. ELIJAH H. PILCHER, the Munroe County, by A. R. STRONG, and that of WM. M. FENTON, of the Shiawassee County, are also practical and excellent productions. There are also, reports upon farms, draining, &c., which cannot fail to arouse the attention of farmers, if these papers find their way into the newspapers of the State.

This energetic State has the honor, we believe, of establishing an Agricultural College, with all its professors and necessary officers; has a tract of nearly 700 acres of land, and suitable buildings already erected upon it. That she may make steady and healthful advancement in this noble enterprise is our sincere wish.

SALT.—An improvement in the manufacture of rock and sea salt has been patented in England, which consists in fusing the raw salt, and keeping it for some time in a state of tranquil fusion, decanting it into hot molds, or letting it cool slowly; in this manner, all the impurities are separated from the mass in fusion, and are eliminated by crystallization by the dry process, which corresponds with crystallization by the wet one.

FARMING IN MAINE.—The town of Exeter, in Penobscot county, Maine, is almost exclusively a farming town, and a recent examination and estimate of its value by competent gentlemen, has led them to the declaration that it is worth now twenty times as much as it was twenty years since. It will hardly do to say that farming in Maine is not a good business.

SEVENTH LEGISLATIVE AGRICULTURAL MEETING.

[REPORTED FOR THE FARMER BY ZENAS T. HAINES.]

At the seventh Legislative Agricultural meeting, held at the State House last Tuesday evening, Hon. Mr. FELTON, of Worcester county, presided. "*Drainage*" was the subject of discussion.

Mr. RICHARDSON, of Franklin county, deemed the subject one of great importance, and one on which farmers needed information. The wet and unproductive spots so prevalent in the western part of the State should be made available for agricultural purposes. They had heard of brush drains, but he could not recommend them in his section. Their land was plentifully supplied with small stones, and it having occurred to him that they might be used to advantage in the place of brush wood, he made from 75 to 100 rods of drain with them. He dug the drain wider than would be necessary in the use of tiles, and from 2 to 2½ feet deep, they being twenty inches wide at the top and from 12 to 14 inches at the bottom. He placed small stones on the bottom from 12 to 14 inches apart, and then placed a cover of larger stones over them. Then he filled in with smaller stones, leaving the smallest on the top. Bushes, sods or coarse hay was then placed on top. This was made in April and May of last year. It was a very wet season, and in a very few days water commenced running from the drains, and had continued to when not prevented by the frost. The soil was black and springy. The immediate benefit of this was, that the soil became in condition for cultivation in good season, and did not bake or become hard. It also took the stones out of the way and out of sight. Time must determine as to the durability of this drain, whether or not it would fill up. It cost about 50 cents a rod.

Mr. FAY, of Boston, said they got their first principles of drainage from the other side of the water, where it is necessary that almost all lands be drained. In our climate, it seemed to the speaker, that drainage was only necessary in springy and hard, clayey soils. The best soil in the world was that which would hold the ammonia best. Sometimes water ran off too fast and left the land to suffer from drought. Drainage would hardly pay in this country except on springy soils, and those with a clay subsoil. How should we drain them? The tile drain was doubtless the best, but too expensive for common use. Open drains, which should not be over 30 feet apart, were unsightly and very inconvenient. Drains should without doubt be covered, and those mentioned by Mr. Richardson were doubtless next best after tiles, and would last 20 years. He had made similar drains 10 years ago. They were now discharging water with regularity. It might

be supposed that water would hardly find its way through these stones, but water would make way through very small crevices if there was but a slight fall.

Mr. FLINT, Secretary of the Board of Agriculture, did not believe in indiscriminate draining in this country, for the reason which had been stated. But he rose to introduce a gentleman of experience in this matter, who had constructed four miles of drain. He referred to Mr. B. F. NOURSE, of Boston.

Mr. NOURSE said that he had laid two miles of tile drain, in which he made use of 10,000 tiles, and about the same distance of stone drain, on his farm in Orrington, Maine. His stone drains were four feet deep. They were constructed of side stones covered with flat stones to form a channel for the water. He then filled with small stones about six inches deep, then threw on sod, turf or bushes, to exclude the particles of soil, and then returned the soil. This cost from 90 cents to $1,00 a rod. His small drains were 3½ feet deep, similar to the above, and cost from 75 cents to 87 cents per rod, deducting the amount of the benefit in getting rid of the stones. His small tile drains were less in width, but of the same depth, and equal care was used in laying them. When labor was dear they cost from 80 to 88 cents per rod. His soil was springy and cold, with a hard pan. The drains were laid four rods apart, and afterwards the land was plowed crosswise over them. The effect was to put these lands in good working condition earlier in the season than any other land in the neighborhood. In 1852, a lot of springy land which he had drained with tiles was in good plowing condition as soon as the frost was out. Before the drainage, cattle could not cross it in early June without miring. The effect of drainage on the field crops, including roots and grain, was equally marked, giving an increased return of more than double the extra cost, and it more than doubled the grass crop. The last foot in the depth of a drain was the most expensive and the most valuable, but $37,50 per acre would cover all the expense of drainage. This was a process which increased in value with years. It enabled the *later* as well as *earlier* cultivation of the land. His own land in Maine, drained in this manner, had been plowed as late as November 20th. He found that the cost of the tile drain was a little larger than the stone drain. He made no account of the advantage of getting rid of the small stones. He found no difference in the operation of the two drains on his own farm, which was a pretty steep hill-side, with a northern exposure. He could not recommend an open drain with stones.

Mr. HOWARD, of the *Cultivator*, said that arrangements were making to furnish tile at a cheaper rate than heretofore. Drains were made in New York at a cost of 30 cents a rod. They would be for sale at all the agricultural warehouses here. Their average depth was 2½ feet. There might be cases where a depth of 4 feet, or more, might be necessary. It was found in England that in very tenacious soils, depth would not compensate for great width of space between the drains. The effect of water left on the surface was to bake and stiffen the soil. On springy soils, where sub-aquatic plants were observable, drainage was necessary.

Mr. COOK, of Wareham, had found drains of great advantage even ten rods apart. He had doubled the value of lands by open drains this distance apart. If his drains were nearer together he had found the grass lighter. They drained the land too much. Tipping in stones without the care of laying them had not worked so well as bushes.

Mr. FLINT offered the following resolutions referring to the death of Col. MOSES NEWELL, of Newbury, which were adopted by the meeting, after feeling and eloquent tributes to the memory of the deceased by Mr. FLINT, Mr. FAY, of Boston, and Mr. DAVIS, of Plymouth.

Resolved, That we contemplate with deep and unmingled sorrow the death of our late associate, the Hon. MOSES NEWELL, of West Newbury.

Resolved, That we feel most sensibly the great obligations which rest upon the community to cherish his memory, for the lively interest which he manifested in the progress of agriculture, and for that benevolence, courtesy and kindness of heart which gained him the confidence and respect of all.

Resolved, That we sympathize most deeply with the family and friends of the deceased in their heavy bereavement, and that while we mingle our tears with theirs, we rejoice in the belief that he has passed to a higher and more glorious state of existence and happiness.

Resolved, That a copy of these resolutions be transmitted to the family of the deceased, and published in the report of this meeting.

NEW GRAFTING WAX.

We find in the papers the following recipe for making *grafting wax*. It is similar to a composition which has long been used for covering limbs where they are cut off in pruning. It may prove well, and will cost but little to try it. It is as follows:

Take two ounces of common rosin, melt it slow over a fire, being careful not to heat it so much as to make it throw off its spirit of turpentine. When it becomes clear as syrup, add a little less than one ounce of alcohol, and mix well and put in a bottle at once and cork tight. Alcohol is to be added sufficient to make the mixture liquid and keep it so, and when applied to trees, it hardens at once and forms an air-tight covering.

For the New England Farmer.

SUGAR MAKING.

TAPPING THE TREES.

The old-fashioned barbarous method of *boxing* is now mostly disused; and the custom of using an inch auger, or even one of three-fourths of an inch, should also be discontinued. The practice, too, of fastening a spout under the auger-hole by means of a gouge, is by no means to be recommended. A bit, of three-eighths of an inch diameter, is large enough. I use no other, though my trees are from one foot to two and a half feet through. As for "spiles," the best when made, and the easiest to make, are made from white pine. Take free sticks eight inches long, and split them up into pieces five-eighths of an inch square. Saw them half in two on opposite sides, about two and a half inches from each end. You can split them with a knife or chisel as easily as you could open an oyster. Every stick will thus furnish you two spiles in the rough, five and one-half inches long. Bore holes through the square ends with a bit, and if the timber is soft, a pod-bit will remove the wood so that there will be no need of burning. Whittle them, not to a point, but so that they will exactly fit your three-eighths bore. Spiles should not be driven hard into a tree, for if they are dry, they will be likely to swell and press the bark on each side so as to kill it, causing a wound that will require a long time to heal. It is very easy to set them perfectly tight with the hand.

You can box the tree anywhere from one to six feet from the ground, selecting a place where the timber is free and straight-grained. The sunny side of the tree is to be preferred early in the season; later, the shady side is best. If there is much snow, spike up your tubs; if not, I would set many of them on the ground, if the roots were not in the way; this is much better in a windy place, than to hang them up. Spiles can be made of various lengths, up to two and three feet long, to suit the different locations. Bore about an inch deep at first, and about one-fourth of an inch more each subsequent time; as you will generally need to tap over twice during the season; but never exceed an inch and a half in the wood. Large trees may sometimes be tapped over by transferring the tub from the south side to the north, when the south side ceases to run.

SPIKES.

Wrought nails are not fit to hang up tubs with. I use spikes made expressly for the purpose, two and one-half or three inches long, and one-fourth of an inch square, with a heavy brad head, and flat point so that they may cut their way into the tree without splitting the bark, and also be more easily drawn. Good spikes for the purpose are worth $1,25 per hundred.

CARE OF SAP.

Be especially careful to keep your sap clean both in the storage and the boilers, and thus save the eggs and milk which the *Tribune* recommends to be used. Leaves and other foreign substances will discolor your sugar very badly. The best way is to prevent all need of cleansing. To dip sap from one pan to another, as is advised by the *Tribune*, would be worse than labor lost. To dip a single barrel would be no great matter, but to dip twenty-five barrels per day, or four hundred barrels in the season, (the quantity I boiled last year,) would be an additional labor I should not be willing to incur. Besides, even if it cost nothing, I should choose not to have it done.

THE SYRUP

need not be taken out oftener than once a day; and should not be thicker than will make six pounds to the gallon, since it will not settle clear, if but a little too thick. When it is reduced to the right point, (a thing best learned by experience,) take the pans off and turn it out; for, if you undertake to draw it off at one corner by an outlet made for the purpose, you will be likely to burn some, as your arch will probably be hot. Two persons can easily remove the pans, if made, as they should be, with two handles on each side. But it will be said that this plan will not work, if there is but one person tending the boilers. I will tell you how I can take off the biggest pan I have described, without help. Near the middle of your arch, upon one side, and at a convenient distance from it, set a post of proper height for the purpose. Fasten a light pole, that you can handle easily, to the top of the post by a pin driven in vertically. To that part of the pole which comes just over the centre of the pan, attach a cord that has been doubled, or two cords, if you choose, each being tied in the middle. You will then have as many cords hanging from the pole as handles to each pan. To each of them fasten a hook made of strong wire, hook them into the handles, and then, if the height of your post and the length of your cords are rightly adjusted, by lifting at the free end of your pole, you can raise your pan, swing it round, and set it on a platform that you can readily construct. This is easily done, and will obviate the necessity of having two hands in the sugar-place when you "syrup down."

Strain the syrup through a tolerably fine strainer into tubs (of a large size, if you prefer,) but *not* into iron kettles, and let it have time to settle perfectly before "sugaring off."

About this and a few other things I will say a few words in the next paper. E. H. G.

Hinsdale, March, 1858.

For the New England Farmer.

FARMS IN RUTLAND CO., VERMONT.

"L. S.," of Castleton, Vt., recently said in your columns, "that not one farm in fifty in Rutland county has or can be made to pay four per cent. upon the assessed value thereof." I think he is mistaken. We certainly send large quantities of produce away after reserving enough for all our wants. I understand that the Brighton and Cambridge Markets receive their largest supplies of cattle and sheep from Vermont, and I have no doubt that Rutland county supplies her full share of them.

It is my opinion that Vermont has plenty of good land that may be cultivated at a better profit in small farms than can be obtained by farming in the West. Large farms are well enough where there is large capital and large skill. The great trouble with us is, that our boys and girls are not educated for farming business; most of them are looking to something else for a living, partly be-

cause they have heard the cry so often that "there can be nothing made in farming." New England is the place for honest enterprise, and for farming especially,—but then men and women ought to understand the business as well as the cabinet-maker or wheelwright does his. J. E. W.

South Londonderry, Vt., 1858.

BE GENTLE WITH THY WIFE.

Be gentle: for you little know
How many trials rise;
Although to thee they may be small,
To her of giant size.

Be gentle! though perchance that lip
May speak a murmuring tone,
The heart may beat with kindness yet,
And joy to be thine own.

Be gentle! weary hours of pain
'Tis woman's lot to bear;
Then yield her what support thou can,
And all her sorrows share.

Be gentle! for the noblest hearts
At times may have some grief,
And even in a pettish word,
May seek to find relief.

Be gentle! for unkindness now
May rouse an angry storm,
That all the after years of life
In vain may strive to calm.

Be gentle! none are perfect—
Thou'rt dearer far than life;
Then, husband, bear and still forbear—
Be gentle to thy wife. FANNY FERN.

For the New England Farmer.

BLOOD MANURE—AN EXPERIMENT.

MR. EDITOR:—I wish to inquire, through you, if Nourse, Mason & Co. still continue to manufacture the blood manure, of which I bought last season? If so, I propose to give the results of what I used by way of trial, both for their benefit and for the advantage of the farming community, through the columns of the *Farmer*. Thinking as I do that the farmer cannot manure too highly, and that some concentrated manure may be used to much advantage in forcing forward the young crops, I have always used, to considerable extent, stimulating manures at the time of planting.

I began to use guano among the first, having taken two bags of Ruggles, Nourse & Mason, I think of their first importation, and have used it to a greater or less extent ever since, mostly with profit to myself.

But as it became more known and in greater demand, the sellers of the article, deeming it a necessity to the farmer, continued to raise the price, until they carried it too high for their own advantage. I then began to try other fertilizers. Super-phosphate, ashes, muriate of lime, (a poor manure, according to my opinion, by the way,) fish guano, &c., still continuing, however, to use Peruvian guano side by side with the other manures mentioned, and comparing the cost and the result.

Last year, on seeing the advertisement of the *concentrated blood manure*, I resolved to try *that*, side by side with guano and super-phosphate, on a small scale, and therefore purchased two bags, weighing, I believe, 300 lbs. The cost, I think, was $35 or $40 per ton, while guano was selling for $68 or $70; the blood manure being but little over one-half as much per lb. as the latter.

I applied it in the hill to corn, as nearly as I could in equal proportions of *weight*, thus making it *cost* me about twice as much where I manured with guano as with the blood manure. I put up stakes at the end of the rows, marked for each kind of fertilizer on the land, and watched the effects through the season. I used on the piece guano, super-phosphate, muriate of lime and blood manure, ten rows of each, leaving ten rows unmanured. I said I watched the growth through the season with much interest, and could perceive but little difference between the looks of the corn manured with blood manure and super-phosphate, both being of a darker green and more luxuriant growth by far than where the muriate was used, which did not appear to have made any better growth than where the corn was not manured in the hill at all. The guanoed rows were *nearly*, but not quite up to the rows on which the blood manure was used, but at double the cost; and we must also take into consideration that not one year in five is as good as the last to obtain all the virtues of guano. In a dry season I have found it worse than money thrown away to apply it. Therefore I shall use the blood manure in future as a stimulant, with perhaps some exceptions in favor of super-phosphate.

There is one objection to the super-phosphate, that you are not sure of getting a good article, and being manufactured at a distance—I have always used De Burg's—it is not (should what you bought prove inferior,) so handy to *blow* the manufacturer up as it would be to complain of a firm nearer home.

For their sake, and for the benefit of the farming community, I hope Nourse, Mason & Co. will continue to make and sell the blood manure, and from their well known standing as fair business men, I think we may rely upon the article as being what it professes to be.

I intended to harvest the rows and husk them separately, when I could have given a more definite result; but fortunately for me, although unfortunately for my making on accurate trial, I had so much fruit last fall, and was so much hurried thereby, that I did not do so.

Westford, March 1. L. H. HILDRETH.

CURE FOR THE BITE OF A MAD DOG.—A writer in the *National Intelligencer* says that spirits of hartshorn is a certain remedy for the bite of a mad dog. The wound, he adds, should be constantly bathed with it, and three or four doses, diluted, taken inwardly during the day. The hartshorn decomposes, chemically, the virus insinuated into the wound, and immediately alters and destroys its delecteriousness. The writer, who resided in Brazil for some time, first tried it for the bite of a scorpion, and found that it removed pain and inflammation almost instantly. Subsequently he tried it for the bite of a rattlesnake, with similar success. At the suggestion of the writer, an old friend and physician tried it in cases of hydrophobia, and always with success.—*Germantown Telegraph.*

For the New England Farmer.

CULTURE OF THE MANGOLD WURTZEL.

BY HENRY F. FRENCH.

Value of the Mangold—Fed to Cows in the City of London—Culture in Lincolnshire, England—Culture in Ireland—Letter from Mr. Boyle, Farmer at the Albert Model Farm.

In no single point did my opinions meet with a more decided change, in my wanderings last summer in Europe, than with respect to the value of the mangold wurtzel. My belief now is, that we can cultivate no other root for stock so profitably as this, and I hope the readers of the *Farmer* will give it a fair trial the coming season.

The results of careful inquiry in many places in England and Ireland, and of observations in Belgium and France, where the climate is hot and dry in summer, may be given in a few lines. The mangold is more easily cultivated and yields a greater weight than any other. It is in general of about the value, bushel for bushel, with Swede turnips, for all horned cattle. It is valuable for sheep, for horses and for swine. Many English farmers consider the mangold equal in value to carrots, bushel for bushel, for cows. Swine, they say, will thrive well on them raw in the spring and summer, and there is nothing so profitable to raise for milch cows. All agree that they should not be fed out until after Christmas. Many say they are actually poisonous to cattle in the fall. They doubtless undergo some ripening process, like winter apples, after they are taken from the ground, or some fermentation, which adapts them to the wants of animals.—Twenty-five or thirty tons of 2240 lbs. is a common crop to the acre in England. I think three or four tons of them can be raised with the same labor as one ton of carrots. There is nothing that will stand a drought like the mangold. They have been known frequently to strike to the bottom of a four feet drain, and so have a good chance to find all the water that is going. The beet, of which the mangold is a huge variety, thrives well in France, as is well known, and is extensively cultivated for sugar. I observed through both France and Belgium that the beet endured drought better than Indian corn. In our hot, dry summers, it must be our surest root crop. I had always supposed it easily produced, but not to be of much value. My attention was first called to it in London, a strange place to study the culture of root crops.

In the midst of the fashion at the West End in London, a sensitive and discriminating nose may detect the rural flavor of the cow-house. I soon found a stable near my boarding-house of three hundred and fifty cows. Visiting them often, I took careful notes of the mode of keeping, the structure of the stables, quantity of milk and breed of animals, which I will advert to when there is room in the paper. All I wish to say now, is, that I never saw a better collection of cows, and that then, in the month of June, each cow received three pecks daily of mangolds. My inference is that if it is profitable to feed this root to cows, in the city of London, in the summer, it must be profitable for farmers in the country to use it.

Everywhere I heard the same opinion, and made it a subject of conversation often, that I might not mistake the opinion of a few for public sentiment. In July, I passed a week with Ralph Lowe, Esq., of Brauncewell Manor, in Lincolnshire, and found that he and all the other good farmers of one of the best farmed districts in England thought very highly of the mangold. So after dinner one day, I took my pen and notebook, and asked him to give me careful directions how to cultivate the crop in his country. Mr. Lowe is as reliable as any man in England, and his mode is correct for his district, and a little Yankee shrewdness may adapt it to America. I give the directions almost verbatim, as I recorded them that pleasant summer evening, in "Merrie England."

"Take dry land, well drained,—not clay,—that will work fine, say after wheat. Manure with twelve tons of good manure to the acre, at least, and the more the better. Plow it in six inches, and leave it till spring; then when dry enough, harrow deep, roll and work fine with plow and harrow. Sow broadcast at least 560 lbs. of salt, twice the quantity is better. Throw into ridges twenty-seven inches apart with a common plow. Soak the seed eighteen hours in water, and lay on a dry cloth twenty-four hours. Drill with a hand-drill three to six pounds of seed to the acre. Examine and see if the seed is sound or has been eaten by an insect. Drill 100 lbs. of superphosphate with ashes, the more the better, with the seed on the ridge, the ridge having been first rolled lightly to flatten it. Sow one inch deep, by hand, drop the seed six inches apart. Hoe as soon as up—thin out to one foot apart. Horse hoe and keep clean. Look over and be sure to have but one plant in a place.

In October or November gather without breaking the skin, cut or twist off the top an inch above the root, remove the earth with a dull instrument, so as not to cut the root. They are usually stacked and covered with straw and earth in England, but will probably (says Mr. Lowe,) keep like potatoes anywhere. Average crop, 26 to 30 tons of 2240 lbs. to the acre. Spread the leaves evenly over the ground, and plow in. By no means remove them from the land. Do not feed out till February, because the mangold is poisonous early in the season, and will scour the cattle and do them no good."

So much for Lincolnshire. Nearly two months after this my wanderings led me to Dublin, in Ireland, and to the Government Model Farm at Glasneven, close by. I shall some day, perhaps, have a long story to tell of this school and farm, but now mangold is the word. I never saw better crops in my life than on the model farm, and the mangold I found in high favor there too. Dr. Kirkpatrick, the Superintendent, was absent, but Mr. Boyle, the farmer, a man of great intelligence, showed me the farm. I was so much struck with the mangolds, and had become so much impressed with the importance of the crop to us at home, that I requested Mr. Boyle to furnish me with an account of its cultivation for publication in America.

Mindful of his partial promise, Mr. Boyle has written me the following letter, which I know will interest our readers. The article referred to in it has not yet been received, but will be in some form given to the public when it comes.

We have here an opportunity to compare the views of persons quite remote from each other, and it is worthy of notice how well they are agreed, especially as to the points that the mangold is very valuable, and that it must not be fed early in the season.

ALBERT MODEL FARM,
Glasnevin, Dublin, 12th Feb., 1858.

SIR:—At your visit to this farm last autumn I promised to forward you a report on the cultivation, &c., of the mangold wurtzel; and on speaking to Dr. Kirpatrick (the Superintendent) on the subject, he thought better to allow the advanced pupils here to compete for prizes, offered by himself, for the best essay on that crop, with the understanding that it should be forwarded to you. This I agreed to, and I therefore, for the present, forego the pleasure I should have derived from sending you a paper of my own on the subject. The essay is at press, and it shall be forwarded to your address immediately after issue.

I hope it will reach you in time for the purpose originally intended. A portion of the essay has just appeared in the *Chemico-Agricultural Society's Journal*, which you may expect along with the essay in a complete form. Every succeeding year we are more convinced of the superiority of mangold over Swedes for general purposes. The only reason, perhaps, why this crop should not altogether take the place of Swedes, on *deep, rich land*, is that it is not fit for use until it has been stored for about two months. Hence turnips, or some other crop, must be supplied for this period. The crop of mangold which you saw growing here in August, produced 31 tons, per statute acre, of *bulbs*, and 12 tons of leaves. Swedes 19 tons per acre; wheat 20 to 25 cwt.; oats 30 cwt.; potatoes 8 tons. Our potatoes are keeping well in store, and the crop pays us better than any other we grow.

Returning to the mangold; it requires to be largely manured, the land on which it is to be grown *deeply* tilled. On no account should the young plant be *bled* by any of the implements in the after culture. Should be securely stored previous to the setting in of *frost*; the *long* varieties are more susceptible of injury than the *globe* varieties—the former should be first used. If stored in *cellars*, it must be well ventilated, otherwise the heap will *heat* and decay. Even over ground, in large piles, the crop will require ventilation. It occurs to me that it will take great care and good management to keep the mangold secure from the frost of an American winter, and at the same time to provide proper ventilation.

In taking off the leaves at the time of storing, care should be taken that the *crown* of the plant is not cut into. Some persons advocate the *breaking* off the leaves by the hand. I prefer cutting them off carefully. The bulbs will keep all the better in store by allowing some *of the earth* to remain on them when taking them out of the land. As to feeding qualities, the mangold will produce more *milk* than the same weight of Swedes, and the milk from both will produce as nearly as possible the same per centage of cream; but the butter produced from the former will be paler in color than from the latter. Swedes, however, give an unpleasant taste to milk, which may be obviated by the use of a little nitre in the milk when fresh.

Some of these points may not be touched upon in the essay, hence I have taken the liberty of saying a little on the subject here. I shall be happy at any time to give you my views on any farming subject you may select.

I have to thank you for the Patent Office Report, the value of which is enhanced by your own article. I have a great many near relatives in the United States, most of whom are engaged in farming pursuits—some in Ohio and others in Wisconsin, &c.—and I have an opportunity of knowing a good deal about the country, and I am always glad to see the official reports.

I have the honor to be, sir, your obt. servt.,
WILLIAM BOYLE.

If we consider the above statement, as to all the crops named, we shall find them very heavy. The ton should be reckoned 2240 lbs., and the cwt. 112 lbs. The wheat crop, then, was 40 to 50 bushels to the acre, reckoning 56 lbs. to the bushel; the oats 112 bushels to the acre, reckoning 30 lbs. to the bushel. The potatoes 320 bushels of 56 lbs.

When shall we have Model Farms in our country?

For the New England Farmer.

MOSES NEWELL, OF WEST NEWBURY. Æ. 63.

On Saturday, 13th inst., at noon, it was my privilege to be present in West Newbury, when the mortal remains of this highly esteemed citizen of the county of Essex, Mass., were deposited in the silent tomb. I have rarely known a better man. An intimate acquaintance of more than forty years has confirmed the belief that he was worthy of entire confidence. Inheriting, as he did, a vigorous body and an ample farm, from his much respected sire, he was content to remain a genuine specimen of the New England farmer, without deviating into the quagmires of official life. True, at the earnest solicitations of frien

and for their gratification, he several times accepted office, for short periods, but never for the vain desire of official distinction, or to the neglect of his family or farm. Frank, open and free, you always knew where to find him. He was eminently distinguished for soundness of judgment and integrity of character. Gladly would I record *specifically* his many virtues, did I not know that they are ineffaceably engraved on the hearts of all who knew him well. He was an admirable illustration of the noblest work of God —"an honest man." P.

March, 1858.

For the New England Farmer.

SCIONS, SEEDS AND SOILS.

MESSRS. EDITORS:—If I mistake not, the following query had, some time ago, a place in your columns; viz:—"When scions are taken from a fruit tree, and grafted upon stocks raised from the seeds of that same fruit tree, will any advantage or detriment result from the practice? or is it simply immaterial?"

No response, from any quarter, was given to this inquiry. Possibly if now repeated, it might attract the notice of some horticulturist, competent, from his own experience, to satisfy the doubt.

Another point of interest, not yet settled, is this. "In selecting a suitable soil for a fruit tree, should the ground be chosen with reference to the graft, or to the stock?" In the case of pears on quince stocks, it seems to be conceded that the soil must be adapted to the quince. Yet, on consulting the several fruit books now extant, it will be found that each fruit is described as requiring a certain kind of soil, without reference to the stock on which it may be growing. How is this matter to be understood? As the roots proceed from the stock, it would seem reasonable that the ground should be such as the stock would best thrive in. But, as fruit trees are grafted indiscriminately on various stocks, how was it discovered that certain soils were adapted to certain varieties of fruit?

If fruit trees can henceforth be grown upon their own roots, by M. Dochmahl's method, or by any other mode, then it will be practicable to ascertain the soil suited to each variety, or if scions may be grafted on seeds obtained from the same tree that produced the scion, it may be presumed that the soil would affect both stocks and graft alike, but how the point is to be determined when several varieties of fruit trees are growing on stocks of other unknown varieties, it is surely difficult to understand. FAR EAST.

February 23, 1858.

A SIMPLE REMEDY.—A writer in the Baltimore *Sun*, who has been afflicted severely in his family by that appalling disease, bronchitis, has found relief from the following remedy:—Take honey in the comb, squeeze it out, and dilute with a little water, and wet the lips and mouth occasionally with it. It has never been known to fail, in cases where children had throats so swollen as to be unable to swallow. It is certainly a simple remedy, and may be a very efficacious one.

DEATH OF COL. NEWELL.

The intelligence of the death of Col. NEWELL came to us like one of those unexpected and startling calamities which occasionally arrest the thoughts of man, and show him how true it is that "in the midst of life we are in death." It seems but a week since we saw him with a steady step, a clear eye and comprehensive intellect, actively engaged in the concerns of life, and with earnest desires to promote the happiness of all; but without a warning note having reached our ear, we heard that he had been called from the earthly scenes which he had so long dignified and adorned. His step has ceased, his eye become dim—but that intellect which guided him so wisely here, and through which he conferred so many benefits upon his kind, we cannot doubt is already effulgent with new illuminations from the Creative Power.

Col. Newell was well educated as a citizen of the world; he was gentle and unassuming in his manners, discriminating and sound in his judgments and firm in his opinions, though he never pressed the latter upon his listener. Though often called to the discharge of public duties, he preferred rural life, and found his chief enjoyments in the bosom of his family and in the congenial occupations of the farm.

He had long been an influential member of the Essex county agricultural society, acting for several years as its President, and was an active and useful member of the State Board of Agriculture, where his unostentatious and winning manners, and the general correctness of his views, led all to look upon him as a safe adviser.

Let us cherish his memory and emulate his virtues, and be ready for the call which summoned him in the midst of his labors and usefulness, and like a shock of corn ripe in its season.

A NICE POINT OF LAW.—I heard this anecdote from a gentleman long resident in Philadelphia. Two Quakers in that place applied to their society, as they do not go to law, to decide in the following difficulty. A. is uneasy about a ship that ought to have arrived, meets B., an insurer, and states his wish to have the vessel insured. The matter is agreed upon. A. returns home and receives a letter informing him of the loss of his ship. What shall he do? He is afraid the policy is not filled up, and should B. hear of the matter soon, it is all over with him; he therefore writes to B. thus: "Friend B., if thee hasn't filled up the policy, thee needn't, for I've heard of the ship." "O, O!" thinks B. to himself, "cunning fellow; he wants to do me out of the premium." So he writes thus to A.: "Friend A., thee be'st too late by half an hour; the policy is filled." A. rubs his hands with delight; yet B. refuses to pay. Well, what is the decision? The loss is divided between them.—*Rev. John Eagles, in Blackwood's Magazine.*

For the New England Farmer.

UNDERDRAINING AND IRRIGATION.

That underdraining is not needed on most of our land in this country, I infer with much confidence from the acknowledged beneficial effects of mulching,—a process, by the way,

"For which the speech of England hath no name;"

simply, I suppose, because where draining *is* really necessary, any such expedient as mulching *is not* necessary. I do not speak of mulching as a substitute for draining; and, therefore, do not care to inquire whether it is practicable in ordinary farming. The principle of its operation may be tested in the garden or orchard as satisfactorily as on the whole farm. That principle I rely upon as an argument against draining. My own experience, and that of others who have published the results of their trials, show that mulching benefits vegetation chiefly by keeping the surface of the earth moist and loose in our hot and dry summers. As straws afloat in the air show the direction of the wind, so "straws" spread upon the ground may show the direction farmers should take in their efforts to promote the growth of their crops. The principle, then, which I regard as conclusively demonstrated by the effects of mulching is, that a deficiency of moisture, not an excess, is what American farmers have to fear and guard against; and the inference, a very natural one, is that they should "govern themselves accordingly."

With these views, and in one of those "dry spells" that occur almost every summer, when the broad leaves of that salamander plant, our Indian corn, roll themselves into flabby strings, and when wells, twenty, thirty and forty feet deep, "give out" entirely, is it not rather more refreshing than instructive to retire into a cool library, and read, as we may, from a portly volume, backed in golden letters, "THE AMERICAN FARMER'S ——," the timely assurance that "The *very first* care of the farmer, that on which the success of his future crops *almost entirely* depends, is the removal of unnecessary supplies of water?"

As it is possible that some one may reply to the argument drawn from the effects of mulching, that it is superficial,—that, at best, it relates only to the surface of the soil, while watery billows roll below, I will now try to go a little deeper. Though claiming the ability to see as far into a mill-stone as most people can, I feel much satisfaction in being able to take for my subterranean guide so distinguished a gentleman as Dr. Hitchcock, and will let him, as spokesman, report:

"It is well known to the chemist that most of the salts, so useful upon lands, are dissolved by rains, and carried downward through the soil till they meet with a water-bearing stratum. There they will accumulate; and now let that stratum—known by springs issuing from it—be dug up and spread over the surface, and these salts will exert their appropriate influence upon the crops. This very principle is the chief secret of the good effects of subsoil plowing, and I doubt not but it will yet lead to valuable results in the use of substances drawn from a still greater depth. In some instances they certainly have produced astonishing effects."—*Hamp. Ag. Address*, 1856.

Now if the pot be not allowed to call the kettle black, why should those who underdrain their soil, and thus empty these valuable "salts" through carefully laid tiles into the ocean, or some other safe place, laugh at the folly of those old-fashioned farmers who "underdrained" their cow-yard, pig-pen and manure-heaps?

Whatever may be thought of the pertinency of this question, I must confess that it is not original with myself. Some time ago a stray number of the *Mark Lane Express*, an English agricultural journal, fell into my possession. It is lost now, but I remember that the leading editorial article was devoted to a discussion of the subject of draining. In the course of his remarks, the editor puts into the mouth of a regular old-style John Bull farmer, whom he pretended to have met at a certain fair, divers objections and arguments against draining, among which was, in substance, the above question. It appeared strange to me that an agricultural paper in England should venture to give so many suggestive hints against draining, although it was done in the words of a mere "clodhopper." I thought it clearly indicated the existence of doubt, in the mind of at least one able English agricultural editor, of the infallibility of Thorough Draining as a specific for every ill farming is heir to. From my slight knowledge of English agriculture, I suppose that draining, like the much vaunted Tiptree farming, is rather the plaything of capitalists than the work of practical farmers—that, in fact, drainage is the exception, not the rule, of tillage land even in England.

This digression has carried me so far from Dr. Hitchcock's remarks, and I am so willing to leave them to make their own impression, that I shall not attempt to return to that branch of my subject.

In the next place I object to tile draining, that it is exhaustive. It adds nothing to the soil. It is not a fertilizer. No one will dispute these positions. In a long list of the benefits ascribed to thorough draining, on the last page of the monthly *Farmer* for 1856, is the following: "It hastens the decay of roots and other vegetable matter" in the soil! A statement far more encouraging to the race of farm-skinners than to those who wish to improve the soil. This singular "benefit" of draining suggests another thought. By "hastening the decay of vegetable matter in the soil," an apparent improvement in crops may for a time be ascribed to drainage, which should be credited to the gradual impoverishment of the soil, consequent on this very decay of its vegetable matter. Especially in a highly manured and long cultivated country like that of England, a lowering of the water-line from within a few inches of the surface to the depth of several feet, might be followed for a time by results that could not be anticipated in a poorer soil, or in one whose saturated subsoil has always been much farther below the surface of the earth.

In conversation a few years since with a Connecticut River farmer, on the comparative merits of the soil of that valley and the more heavy soil of the Champlain valley, one remark was made that I have not forgotten, and which I will repeat in this connection. The Connecticut River farmer said, "What we lack is a bottom to our farms." I understood him to hold, with Dr. Hitchcock, that on the porous subsoil of his farm the salts of the manure were carried downward through the soil beyond the reach of plants,

while the more volatile portions escaped into the air. He wanted a "bottom to his farm"—something that would hold the manure—the vegetable matter—and the soil, too, from the constant leaching to which it was already subject. Would thorough draining meet his case?

An observing townsman, who has spent some time in California, informs me that the river bottoms only, so far as he saw, were cultivated in that State. On these bottoms, he says, the soil is constantly moist almost to its very surface. Here grow the monster vegetables of which we have so often read. The soil there which is not thus kept filled with moisture, bakes and cracks in the dry season, and cannot be cultivated at all, until by some means the land shall be irrigated.

When I closed my first article, and when I wrote the heading of this, I thought I should have ample space for some remarks upon irrigation, after giving my reasons for believing that, in this country, draining will long be confined to swamps and low lands, which constitute a very small proportion of the soil either of New England or of these United States. But I have filled my sheet, and may as well stop where I am. Wishing, however, to make my bow in good company, I will append the following statement from the writings of Prof. Nash:

"I have often described our most common qualities of New England soil to English farmers, and asked what would be the effect of draining such lands; and I have received for reply, that it would but lose to the owner all the money expended in the operation." S. F.

Winchester, Feb., 1858.

For the New England Farmer.

MERCY TOWARDS ANIMALS IS ECONOMY.

The teamster, who loads his dray or wagon so heavily that the horse or team attached to it cannot draw it but a short distance, without being so exhausted of strength as to be unable to proceed, without stopping to rest, or breathe awhile, is an unmerciful and an unwise man.

Whoever practices such a mode of loading his team is ignorant of true economy, and is wanting in merciful feelings—is inhuman. It is ever injurious to the beast of burden or draft to overload him; such loads as require the exercise of the full, or nearly the whole strength of the animals to move them forward, strain their nerves and sinews and stifle them. The over-driven or over-worked horse is injured in his strength and speed. It is uneconomical to manage and use a horse in such a manner as to impair his usefulness and value. It is most unwise to lessen by our usage, more than necessary, the market value of our working animals, to shorten their lives or their periods of serviceableness. It is great folly to so use a horse, that would, with kind and wise management, be serviceable for ten years, as to curtail that term of usefulness to six years.

The motto, that "time is money," is true indeed. By over-driving or over-loading, we impair the speed of the carriage and dray horse. We lose time in their lessened speed and activity afterwards. We occasionally see drays, sleds, and wagons, so heavily loaded for the horses or teams attached, that they cannot be moved but a few yards or rods, without so fatiguing the animal as to require rest, and may be, with difficulty the load is started after such pauses or stoppings. The horses are much injured by straining, to haul such loads, and much time is lost by such mode of dragage. It would be more expeditious and economical to go oftener with lighter loads. It is better to go twice, in transporting flour, than put on one barrel too many for a load. It is an injury to the harnesses and carriages, when the load is too heavy for the team. A sled is much racked by the swinging to and off of the team in endeavoring to start. Heavy loads rack and strain the carriage ever. It is ungentlemanly to so load a team that its movements pain and shock the sensibilities of street passengers. The act of overloading is accursed.

P.

For the New England Farmer.

GUANO.

MR. EDITOR:—I am a common man, cultivating my own acres to acquire a comfortable support for my family and myself; and have no time to institute accurate comparative experiments. I have endeavored to learn whether it was worth while for me to buy guano, at a cost of three or four dollars per hundred pounds. The first thing I learn about it is that it expends its strength the first season; the second is, if the article is of good quality it needs to be mixed with some diluting substances. The third is, the quantity you obtain for your money, as compared with good manure, is so small that I am satisfied it is better to make compost at home, or purchase good manure from the stable, and to leave the bags of guano to those who deal in fancy articles. I have applied guano, with good success to grass land, just before a rain, doubling the crop as compared with like grounds next adjoining; but I have never seen very beneficial results, when applied to hoed crops. If it be true, as I believe it is, that its virtue will be expended the first year, I doubt whether it will be found worth purchasing. I have heard it said that the most careful analysis will not distinguish the difference in soils, where 500 pounds of guano has been applied to the acre, and where none has been applied. This being so, it shows that there is little reliance to be placed in analysis, or that there is little virtue in guano. ARATOR.

March 20, 1858.

VALUE OF CLOVER HAY.—H. Capron, of Illinois, who has been largely concerned in the dairy business, (having sold $6000 worth of milk in a single year,) informs the *Country Gentleman* that he made accurate experiments to test the comparative value of timothy and clover hay. These experiments extended through a period of two years, were accompanied with accurate weighing and measuring, and the food was changed from timothy to clover and vice versa, once a month, and results were that the clover hay yielded ten per cent. more milk than the timothy. It will be observed that this was not a single experiment, but a series of experiments extending for a long period. It is proper to state that the clover was well cured.

For the New England Farmer.

DESTRUCTIVE INSECTS.

MR. EDITOR:—I made a note of an article with the above heading in the *New England Farmer* of October 31st, written by Mr. S. Brown, a writer over whose signature I always expect to find something worth reading. In that article, occurs the following passage: "There is a natural law operating among reptiles and insects, and all animals which multiply to excess, which causes nearly their extermination periodically."

I am glad to see attention called to this subject, for I believe that, until we arrive at a sufficient knowledge of what these causes are, to enable us to *co-operate with them*, we shall produce about as much effect as we should by sweeping back the tide with a broom.

We may, it is true, save the fruit of a single plum tree, or the blossoms of a single rose bush, from the depredations of the curculio and rose-bug for a single year, but unless the same efforts are renewed every year, a new and countless army will come from some other source, ready to destroy each succeeding crop.

I know it is a favorite method of enforcing the importance of destroying insects, to exhibit their rapidity of increase, and show us what numbers are nipped in the germ by destroying a single individual; but let us look at the other side; take, for instance, the common caterpillar; Downing says, "each female lays from two to five hundred eggs;" allowing the number of males and females to be equal, and taking the lowest estimate, suppose out of each hundred caterpillars scattered over our orchards and forests, many of them in almost inaccessible places, we succeed in destroying ninety, this will give us one thousand next year, in place of one hundred this. I would not, however, discourage any one from making war upon the caterpillar, even with our present knowledge of the subject. I only wish to show the value of such calculations.

Perhaps I shall be told, many cultivators save their plums and other fruits from the ravages of the curculio, and that there are many simple remedies which are often successful. That brings us exactly to the point. Show me a cultivator who succeeds in raising a good crop of plums every year, and I will grant that his skill or location, produces this result; very probably the former; but to one living as I do, in a region where a majority of the farmers leave their fruit trees to take care of themselves, it is not difficult to see how these remedies originate; some natural cause keeps down the curculio for one season, and every remedy, tried for the first time during that season, succeeds perfectly.

But to treat my subject more directly, the causes which, according to my observations, appear to have had most effect in producing the partial extinction of various species of insects, are *parasitic insects, late spring frosts*, and *cold*, at a certain stage of their development. I have observed the first particularly with the common caterpillar; some few years since, our orchards were so infested with this pest, that whole trees were entirely stripped of their foliage by them, but suddenly their ravages almost ceased, and I perceived that after the nests had gained about half their usual size, they appeared to be deserted. I at first attributed this to the Oriole, but on closer examination, I found the remains of the caterpillars evidently eaten by some parasite. This insect is now again on the increase.

Of the effect of late frosts, I do not feel quite so sure, but think the large black pumpkin bugs were nearly exterminated by the frost in 1834. Perhaps some of your readers will recollect that in many places, nearly all the apples were killed that year, by a frost, while the trees were in blossom, about the middle of May, I think. These bugs, which had destroyed most of the vines for several years previous, did no damage at all that season. The past year witnessed another general disappearance of this enemy, although not as complete as before, and this time it was not accompanied by severe spring frost, but I would suggest, whether the cold, wet weather may not have had some agency in it?

In an article on this subject, in the *Country Gentleman* of August 13, Mr. LEVI BARTLETT, of Warner, N. H., says he has not seen the first black bug this year, and not over half a dozen striped bugs; if this should meet his eye, will Mr. B. give us his opinion?

Cold weather, accompanied by high wind, I think reduced the number of rose bugs at least nine-tenths in one season, a few years since. Those who have observed the habits of this beetle, are probably aware that they make their appearance about the time of the first blossoms of the common white rose, and are most abundant in the first part of the hay season, especially in very warm, sultry days; at least, they are much more active on such days, and they fly with difficulty when the wind blows. Now for several weeks of the year alluded to, just at the time for them to come, we had almost continual cold windy weather, and very few rose bugs were seen, and although they have been increasing most of the time since, they are not near so numerous now as previous to that time.

I throw out these hints to call farther attention to this subject, with the hope, that some of your readers, who are better acquainted with entomology, may make farther observations, and give us information by which we may assist nature in this work, as perhaps we might do, by preserving the parasites which feed on these noxious insects, by exposing our cultivated grounds more to the action of frost, or by giving more shelter to birds, by planting evergreens, and retaining a larger proportion of our forests.

Meanwhile, I would suggest that every reader of the *Farmer* "keep his eyes open" during the insect season, make a note of all important facts, and communicate them for the benefit of all concerned.

WM. F. BASSETT.

Ashfield, Mass., 1858.

TO PREVENT HENS SITTING.

Make a small, open pen of laths, or some similar material, in one corner of your hen-house, about eight inches wide, and of any convenient length and height. Let one of the laths or slats be so secured that it may be easily taken out or moved one side, so that a hen may be conveniently passed into or taken out of the pen. On the bottom of this pen, and running lengthwise through it, set up a couple of laths on edge, and

fasten them about the same distance from each other, and from the sides of the pen. Run a small perch across the pen and the work is done. When a hen wishes to set put her in there. She will soon find that she can walk leisurely upon the floor, or roost comfortably upon the perch, but she can't sit without "riding on a rail," and that, they seem to think, isn't decorous. The length of time for which they will have to be confined will vary somewhat, and in obstinate cases it may be necessary to put a few pegs or tacks into the edges of the laths.—*Genesee Farmer.*

For the New England Farmer.

FEEDING OATS TO SHEEP.

Articles in late numbers of several papers condemn the use of oats as feed for sheep, the writers avering that they cause the sheep to bring weakly lambs.

Mr. O. S. Cummings, of Trenton Falls, N. Y., says:—"I had three choice ewes last spring. I fed them two quarts oats daily, through the winter, except as they were fed twice a week on carrots, when the oats were omitted. They dropped four lambs and all but one died." Another writer in Fairfax county, Va., says:—"I have a small flock of breeding ewes, and fed as follows: First winter, no grain except corn; raised every lamb. Second winter, fed corn and oats; raised 50 per cent. of the lambs. Third winter, fed corn daily; raised 95 per cent. Fourth winter, fed corn liberally until February, and then oats daily, until they were turned to pasture; lost 80 per cent. Why there has been such disparity in my success in raising lambs while there was uniformity in the treatment of the flock, with the exception of the grain, is to me a mystery. It never entered my mind to look into the oat bin for the cause, until reading the suggestions in the paragraph on 'Feeding Oats to Sheep,' in *Rural New-Yorker.*"

Now, Mr. Editor, are these things so? I have been in the habit of feeding oats to sheep for quite a number of years and have never noticed anything detrimental arising from it; and I am inclined to think that in the case of the above writers, if they had not kept their sheep so well they would have had better success; two quarts of oats daily would be pretty full feed. It is generally understood in this part of Vermont that a breeding sheep will do better not to be in very high flesh, or as the saying is, "fat as a hog." As this is an important question, I would like to hear the experience of some of our Vermonters upon it. SOLON H. BERRY.

Thetford, Vt., 1858.

REMARKS.—So should we, and hope it will be fairly discussed.

TO IMITATE CORAL BASKETS.—Make the basket of pasteboard in any shape you please; dissolve three sticks of sealing-wax in a pint of alcohol; wet the basket with this mixture, and sprinkle on rice which has been about half ground; let it dry, and repeat the process until the pasteboard is covered, after which paint it with the mixture until it is red enough. A brush of hair or feathers should be used.

WHAT THE WORLD MIGHT BE.

God's world is worthy of our love,
Were kindly deeds done to each other,
Were creeds and castes blown to the winds,
And man in man beheld a brother.
A world of beauty, bloom, and song,
Would each exert his noble powers
To plow the stubborn glebe of wrong
And plant again love's Eden flower.

God's world is worthy of our love,
With all its sorrow, crime, and madness;
And heaven or hell dwells in the heart,
As man exists in grief or gladness.
Man will be better, better loved;
No heart was ever lost by kindness;
One word of mercy might have saved
Souls that, like beacons, sunk in blindness.

God's world is worthy of our love,
If labor did its fruits inherit,
If blood ne'er ruled instead of brains,
And wealth ne'er placed its heels on merit.
That nobler name than King or Lord—
The name of Man—O! guard and cherish;
And Freedom's sacred lands shall live,
When guilty thrones and crowns shall perish.

God's world is worthy of our love,
When joy, like music, thrills heart-chords;
When smiling lips do arch their bow,
And in the heart loose golden words.
The heaven we pray for would be here,
If each would bravely do his part
To crown with joy one cheerless home,
To crown with love one human heart.

EIGHTH LEGISLATIVE AGRICULTURAL MEETING.

Hon. Mr. EARLE, of the Senate, presided. After a modest expression that he should have preferred some one more competent to be in the chair, he went on to speak of his experience in the culture of fruits—particularly the pear—and some of the modern and preferred varieties. He spoke particularly of the *Beurre Clairgeau*, which he considered a fine grower, and a good bearer, and as worthy of cultivation as any other.

He called upon Mr. PROCTOR, of South Danvers, who fully confirmed all that he had said about the Beurre Clairgeau pear, having witnessed the culture of the same by his neighbor, who had awarded to him the first premium for pears in Essex the last season.

Mr. PROCTOR also spoke of the very fine apple orchard on Mr. Ware's farm in Marblehead, on which grew three hundred barrels of superior winter apples the last season—worth, at least, $3 per barrel. These trees were understood to have been growing in the orchard about twenty-four years, and to have been attended with the same care as is applied to everything else on this well managed farm. Mr. Ware's land is first rate to begin with, and he neglects no opportunity of fertilizing it in the best manner, always having regard in what he does to the utility of the thing. He is no fancy man—but one of the right sort of cultivators.

Mr. BROOKS, of Princeton, inquired as to the profits of growing orchards—whether it would pay? The general expression was that nothing could be done more advantageously on our farms —but no one appeared prepared to present an account stated.

Mr. DODGE, of Sutton, spoke of his culture of orchards, and of the decided benefit to be expected from such culture.

Mr. JOEL LAKE, of Topsfield, spoke of his experience of twenty years in the culture of trees. The first thing, he said, was to find the right place to set them; the next was to take good care of them after they were set. This being done, there was no doubt an orchard would pay, and pay liberally, too.

The President named several other varieties of pears and apples particularly worthy of culture.

Several other gentlemen narrated their experience. The meeting was prolonged to past ten o'clock, and all appeared to be satisfied that their time had been well spent.

For the New England Farmer.

CULTURE OF ROOTS.

Are roots, such as beets, carrots, turnips, parsnips, &c. &c., worth cultivating as feed for stock? It had not occurred to me to think otherwise, until I saw the suggestion in the *Farmer* of this date (March 6th)—and forsooth because so large a proportion of their substance proves to be *water*. Admit this to be so, it by no means follows that they may not be the best of feed. We have very imperfect ideas of the processes of nature, by which the size of animals or the growth of plants is advanced. We have no such well established analyses as will enable us to lay down certain rules on the subject. What though it should prove, on examination, that potatoes are composed of *three-fourths parts* of water—does this prove they are not fit to sustain animals that feed on them? and that the animals would thrive just as well, on taking the same quantity of *water*, in a different form? I think not. I have seen animals that had constant access to the purest fountains of water—but it never occurred to me to think that water alone would sustain animals. We know just about as much of animal growth, as we do about soil analysis which is in fact nothing at all, notwithstanding the puffs of certain persons to the contrary. ESSEX.

March 6, 1858.

PEA BUG.—The editor of the *Ohio Farmer* recommends every one to steep their peas in boiling water, in order to kill the pea bug, and thus lessen the reproduction of this insect, which all lovers of peas detest. If *all* would do this, we have no doubt it would soon lessen the prevalence of the nuisance. It is also suggested that the remainder of the crop, or those not intended for seed, be exposed to a slight kiln drying in the fall or winter, to destroy the "bug."

LETTER FROM THE SANDWICH ISLANDS.

[*From our own Correspondent.*]

MAKAWAO MAUI, HAWAIIAN ISLANDS.
December 15, 1857.

EDITORS NEW ENGLAND FARMER:—*Gentlemen*,—The earth at Makawao and Kula, our wheat-growing country, is now being "visited, watered, and greatly enriched with the river of God which is full of water." Blessed be His name, giving doth not impoverish our heavenly Benefactor. How suitable that husbandmen, of all others, may I not say, should feel deep emotions of gratitude to God. How much of Him, so to speak, do they see. How much is he doing for them. Your readers are all familiar with the lines of Pope which many a schoolboy in each effort at learning to speak has spouted:—

> "Ask to what end the heavenly bodies shine,
> Earth for whose use? Pride answers 'tis for mine;
> For me kind nature wakes her genial power,
> Suckles each herb and spreads out every flower.
> Annual for me the grape, the rose renew
> The juice nectareous, and the balmy dew."

This is indeed ridiculous enough uttered by a vain and ungrateful recipient of the divine bounty. But substitute *husbandman* for *Pride*, and give him a humble heart, a grateful temper, and he may well adopt the language of the poet. Surely for his use is the earth who cultivates it, and for his special benefit do the heavenly bodies shine, warming the bosom of the earth and causing it to bring forth abundantly for his sustenance. Who can deny that for the husbandman more than for any other mortal, doth God cause nature to wake her genial power, clothing the fields with beauty and fruitfulness? Is it not a pity that so few of this class, numerous and strong for labor, seem to understand the dignity and importance of their calling? I say, "so few;" for though I am happy in the belief that the number is increasing, still I fear that multitudes of farmers hold on to the cultivation of the soil not because they delight in the employment, but because they know of no other way of obtaining a livelihood. They toil away like bond slaves, and some of them, perhaps, determine secretly to abandon their occupation, as soon as they can find some other business more congenial to their tastes. Is it not a pity that this noble, invigorating, God-given employment should be thus slighted, not to say despised, by so many sons of New England; that so many of them should pine for the city while the means of health and competence, with peace of mind and manly intelligence, lie all about them in the sweet country air and in the soil which may be truly said to have nourished and brought them up from their birth? Who would exchange these for the heat and confinement and the temptations of a crowded city? Many have done so to their great loss.

Need I then exhort your readers to be awake to the importance of agricultural pursuits, or to suggest that they educate as many of their sons as possible in the mysteries of farming? Even should one-half of them choose a professional life, it would be no disadvantage to them to understand the theory of farming, and enough of the practice, too, to carry with them to the pulpit, or to the bar, or to the sphere of the physician's practice, a vigorous constitution. The read-

ers of the *Farmer* certainly do not need a homily from a Hawaiian pastor on the benefit of farming. They see enough in your excellent periodical. Allow me, however, to say that I have lately read an essay on "Farm Life, a School of True Manhood" by the Rev. William Clift, of Stonington, Ct., which I think valuable, and which I desire to commend to the attention of your readers. I do not know the writer, though I have some acquaintance with his locality, having spent my early boyhood in the counties of New London and Windham. I wish every farmer in New England could read this essay. Mr. Clift nobly advocates the work of the cultivator. He writes like one who has some experience in the business. For aught I know, he may have been compelled from feeble health to devote a portion of his time to laboring on the farm. Like the late Rev. Isaac Robinson, of Stoddard, New Hampshire, who devoted much of his time from ill health to this business, though he gained and held, while he lived, the reputation of a close student, and an uncommonly able minister of the gospel; I know another minister whose health demands that he toil twelve hours a day, who is yet an indefatigable student. I love to hear such men speak on the influence of farm life to the development of true manhood. If I am not mistaken, the business of toiling on the farm had, in their case caused such a development.

Allow me to say that on looking back on my life spent in the United States till thirty years of age, first in Connecticut, then in Vermont, afterwards in Western New York, and finally in Massachusetts, I plainly see the truth of the proposition which Mr. Clift lays down in this article, and which it is his object to establish, viz.:—"Farm Life a School of True Manhood." Yes, as I recall early scenes, go from one end to the other of this and that parish, and look in upon the families which I knew in my boyhood and youth, I plainly see that the farm was indeed the school of true manhood. I love to think of the farmers of those towns. They composed the backbone of society and the church. One of them after whom I named our only son, was qualified to be governor of the State. Indeed, many of your readers know that more than one governor of Vermont was a practical farmer. They were the deacons in our churches, our town officers, and our representatives to the State Legislature. I say this the more freely as it was not my privilege to be brought up on a farm, though I belonged to the working class, still, except in haying and harvesting, I seldom wrought in the field. My sympathy was rather with the mechanics, many of whom, I beg leave to say, were intelligent and noble men, though, on the whole, the farmers as a class were more manly, hardy and wealthy. One advantage farmers have always had of mechanics I may mention, is the leisure of long winter evenings. While mechanics of almost every sort were compelled to toil by candle-light, and to a late hour, farmers used to sit by the fire, and might spend their time in reading and profitable conversation. Their superiority as a class when I was young ought to have been greater than it was; for though I freely admit that as a class farmers had a manly and noble character, I cannot at the same time forget that cider-drinking and story-telling during winter evenings effectually kept many of them from rising as intellectual men. Indeed the practice was in many cases ruinous. The thrilling tale of "Kitty Grafton" I never read without being reminded of scenes which I know to have been acted in my own town which nestles among the mountains of Vermont. How many of my old neighbors sleep in a drunkard's grave on the old hill, who learned to drink whisky, and brandy, and other foul spirits, from guzzling cider? I rejoice to believe that the practice of swallowing the juice of the apple has fewer advocates than formerly, and that winter evenings at farmers' firesides are now spent in a more rational manner than they used to be in dear New England.

Yours truly, J. S. GREEN.

For the New England Farmer.

HEMLOCKS AND WHITE PINES.

MR. EDITOR:—While perusing the pleasant letters of your correspondent, Mr. French, indited from foreign parts, and strolling in imagination among the scenes described, free of all suspicions regarding the truthfulness of the narrative, the "even tenor of my way" was rudely disturbed by the unexpected announcement, that our traveller wandering in the Schwarzwald, discovered the black mountains to be overspread with hemlock trees and white pines!

"All the world and his wife" are aware that the trees in question (*Abies Canadensis* and *Pinus strobus*) are held to be natives of the new world only. Mr. French's adventure and recognition, as detailed in his letter published in your January number, will create quite an uproar amongst the botanists. However it may be at Baden, these trees are very common in our forests hereabouts, and they fully bear out Mr. French's encomiums on the beauty of their appearance; though I regret to say that the greater part of the full grown specimens, majestic with umbrageous heads of a century's growth, have succumbed to the axe, and have been ignominiously converted into boards for the carpenter and logs for building wharves. *Sic Transit*, &c.

March, 1858. FAR EAST.

For the New England Farmer.

"OLD RED STOCK OF NEW ENGLAND."

MR. EDITOR:—We are glad to see by your last paper that there in one man among us who stands up for the "old red stock of New England." This is no new theory with Mr. P.; we remember to have heard a like opinion from him several years ago, when he addressed the farmers of Hillsborough county, and you yourself were present. We have lately seen an elaborate article on this subject, in the *American Farmers' Magazine*, a valuable paper published by Mr. Nash, at New York. The truth is, farmers are diffident in the expression of their real opinions of the value of natives, because they are not quite so fashionable. But if it is found that they can be fed at two-thirds the cost, and at the same time will yield quite as good products, is it not clear beyond a doubt, that it is best economy to keep them? GRANITE HILLS.

March 14, 1858.

EXTRACTS AND REPLIES.

FORESTS FOR WOOD.

I wish to plant an acre of very rich (loam) land to forest trees; will you give the information, as to what kind is best to grow wood fastest, where seed can be obtained, and the best way to plant and manage, also, what time is best to plant? and oblige, WM. H. L.

REMARKS.—Mr. B. F. CUTTER, of Pelham, N. H., can probably answer these questions, so as to be of value to you. See a long article of his on "the cultivation and preservation of forests," in the *Monthly Farmer* for January, 1856; also, several other articles, same volume, pages 217, 222, 258. Some of the seeds of forest trees may be obtained at the seed stores,—but generally, they must be ordered in advance.

—

AGE OF SEEDS.

Will you or some of your correspondents furnish me through your paper, the length of time that the following seeds may be kept on hand before they will lose their vitality?

Sharon, Mass., March, 1858. PATRON.

	Years.		*Years.*
Beet	4	Tomato	5
Carrot	2	Celery	3
Parsnip	1	Beans	3
Cucumber	6	Peas	3
Squash	6	Sage	3
Melon	6	Saffron	1
Turnip	4	Summer Savory	2
Cabbage	4		
Lettuce	3	*Flower Seeds.*	
Radish	3	Balsam	5
Pepper	4	German Aster	3
Onion	1	Pink	2

REMARKS.—We took the above list to Mr. GWYNNETH, one of the firm of Nourse & Co., Boston, and who attends to the seed department of that establishment, who placed the above figures opposite the name of the article in question. Mr. G. states, however, that the long-continued vitality of seeds depends upon so many circumstances, that no certainty can be expected unless the seed was gathered when in *proper* condition, *carefully* cleaned, so as not to bruise or otherwise injure the seed, and *thoroughly* cleaned, so that no foreign matter shall excite fermentation or dampness and mould, and then kept in proper packages in a place pretty uniformly dry. When these conditions are all complied with, he would have no hesitation in guaranteeing that most seeds will germinate at *double* the length of time he has set down above; but they should never be placed where the heat is more than 60°.

—

SPAYING COWS.

It will not answer. Nature must have its course in some measure; it is best; it is profitable for a cow to go dry one, two or three months in a year—the milk is better and more of it, in a year.

Plainfield, Mass., 1858. G. V.

REMARKS.—If we did not arrest nature in her course in a good many things in farming, we should probably have queer results, both with animals and plants. It is a fruitless effort to attempt to put down scientific results by mere opinions. All the reasoning in the world would not convince Massachusetts farmers that it is best never to graft an apple tree, even if it is a violation of nature; and so of many other things.

—

A RAT? OR WEASEL? OR WHAT?

I recently found upon the cellar bottom an animal which the cat, I suppose, had caught and killed, that was milk white, except a tuft of hair on the end of the tail, which was black. It was as large as a fair sized rat, and had all the appearance of a rat, except the color and tail, the latter being shorter and covered with hair which was somewhat bushy at the end. I at first supposed it to be a white rat, but the strangeness of its color caused me to examine it more particularly, and I began to doubt whether it could be one, and the more I reflect upon it, the more certain I feel, it must be some other species of animal.

But what it is, or where it came from, is beyond my knowledge, having never seen anything of the kind before. It has been suggested that it might be a weasel, but it has nothing of the shape and appearance of a weasel, but in all particulars excepting those named above, it strongly resembles a common house rat.

If you, or any of your readers, can give any information in relation to such animals, it would be most thankfully received. A. S. SAWYER.

Harvard, Mass., March, 1858.

—

BONE SPAVIN.

Can you or your subscribers tell of anything that will stop a bone spavin from growing, and prevent it from making a horse lame, if taken in season? H. F. ROYCE.

South Woodstock, Vt., 1858.

REMARKS.—Dr. DADD'S "*Modern Horse Doctor*" recommends as a remedy,

Muriatic acid	4 ounces.
Water	2 quarts.
Tincture of blood-root	6 ounces.

Applied daily by means of a sponge.

—

CRACKS IN TREES—PUMPKINS.

"S. W.," Waltham, thinks "cracks in trees are occasioned by water freezing in them, when the expansion causes the crack." But what caused the original crack?

—

RUSSET SWEET APPLES.

Some of the finest *Russet Sweet Apples* we ever tasted, have been handed us by Mr. JAMES EUSTIS, of South Reading, a gentleman well known as a successful cultivator of good fruit.

—

PROLIFIC HENS.

I have had four laying hens through the winter and they have laid from seventeen to eighteen eggs per week; they have been kept on a coarse food, roosted in a cold barn. One dozen of the eggs weighed 2 lbs. 1 oz. HINSDALE.

DORKING AND SHANGHAI FOWLS—SHORT HORN COW.

Where can I obtain pure blood White Dorking Fowls, at a fair price, and the Grey Shanghai spoken of in the *Farmer*? Also, a good short-horn cow, and what is a fair price?

Foxboro', 1858. H. S. SWEET.

REMARKS.—The fowls may be obtained of JAMES MANN, 6 City Hall Avenue, Boston, at $2,50 to $4 a pair.

You can probably obtain the short-horn cow of Paoli Lothrop, of South Hadley, Mass.

—

A NEW SUGAR BOILER.

Mr. J. A. FRENCH, of North Clarendon, Vt., sends us a drawing of an ingenious invention of his own, for economizing fuel and equalizing heat in the process of boiling sugar. These objects are of much importance and will be fully accomplished by the design of Mr. French. It is also adapted to boiling vegetables, and other similar uses. As our space forbids a full description of the boiler, we refer our readers to Mr. French.

—

TRANSPLANTING LOCUST TREES.

I have several hundred locust trees to transplant in the spring, and would like to have Mr. Holbrook, or others, give their advice as to the cheapest and best method of doing it. The trees are seedlings from three to six feet high, and the land on which I wish to plant them, is barren, rocky pasture, descending to the north and much exposed to severe cold winds. Will they succeed without some fertilizer, and would it not be better to remove the tops entirely, planting only the roots. WM. F. BASSETT.

Ashfield, Feb. 10, 1858.

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SLAUGHTER-YARDS—ASHES AND BONE.

Will you, or some one of your numerous correspondents, inform a subscriber as to the best mode of using a slaughter-yard so as to make the most of the manure? There must be valuable experience on the subject in the towns adjacent to Boston.

Also, what you think of using strong ashes mixed with ground bone, instead of sulphuric acid, which is not a very pleasant operation.

Amherst, Mass., March, 1858. HAMPSHIRE.

REMARKS.—We have had no experience with slaughter-yards.

Pure ashes mixed liberally with ground bone, think would form one of the best manures that can be used for almost all soils.

—

GREEN MOUNTAIN PIG.

Mr. William Spalding, of Cavendish, Vt., 77 years old, fatted and slaughtered a pig, nine months and three days old, that weighed when dressed, 424 pounds! A SUBSCRIBER.

—

"A SUBSCRIBER" at Shrewsbury, Mass., requests us to republish an article which appeared in our columns a few weeks ago, as he "has mislaid that number of the paper." If he will send his address, we will send him a copy of the missing paper.

HEMLOCK HEDGES.

The *Country Gentleman* gives the following directions for the cultivation of Hemlock Hedges, in answer to an inquiry on the subject:

The first thing is to procure the plants. If our correspondent can find a locality in the woods where young hemlock trees are abundant, he will have no difficulty in forming a hedge. The great requisite for success in transplanting is to remove a considerable portion of earth on the roots of every tree. If this cannot be done, they should *instantly*, on being withdrawn from the ground, and before the outside of the roots have dried in the least, be buried in wet moss,—or still better, if practicable, dipped first into a bed of thin mud, and then protected with moss. Another mudding, and puddling on setting out, will be of additional service.

If the young plants can be had from a nursery, where they have become hardened to open ground, they will be still better. We know of no nursery in the vicinity of our correspondent's residence more likely to supply good plants than that of Dell & Collins, of Waterloo, N. Y.

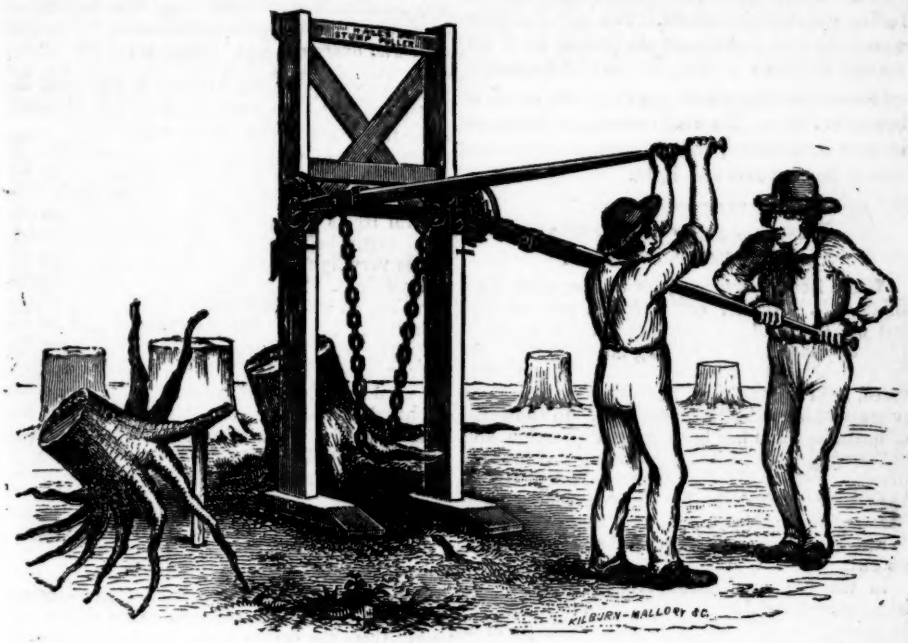
The mode of planting must depend on the objects of the hedge. If for a simple *screen* from the wind, and if the plants are scarce or costly, a distance of three or four feet apart will be near enough, to form in a few years a continuous line. But if a *hedge proper* is wanted, the trees should be within about a foot of each other.

The hemlock will make the handsomest screen or hedge of any evergreen known; it will bear almost any amount of shearing, and the hedge may be formed into a smooth wall of verdure, or be left for a tall natural growth. Either way, it is of surpassing beauty. If cattle or other animals cannot *see* through, they scarcely ever attempt passing, even a weak hedge.

HOW TO RAISE EARLY BEANS.

Plow, manure and prepare the ground well, as for common garden purposes, then make holes which will contain a peck or more of horse-manure and the usual litter that accompanies it. If for running beans, set the poles in the centre and then drop the beans upon the manure after treading it down slightly with the foot. Now scatter over the beans and manure *a very little* fine mould and then cover with clear sand. The warm horse-manure acts as a hot-bed, while the sand becomes heated above by the sun's rays, and has the further advantage of throwing up no weeds. In this manner beans and most other garden vegetables may be obtained very early.

WHAT ONE BEAN HAS DONE.—According to the Barnstable (Mass.) *Patriot*, Mr. LORING CROCKER, of that village, raised last season on one stock, and consequently from one bean, 106 pods, which yielded 453 beans!



HALL'S HAND POWER STUMP MACHINE.

We give above an illustration of a new *Hand Power Stump Machine.* Having no knowledge whatever of its merits, we give Mr. HALL'S own account of it, merely saying that we have examined the machine with some care, and can see no good reason why it will not prove valuable when put in operation. Mr. Hall says, "That two men can carry it about the field from one stump to another, and draw the largest pine stumps out of the ground by hand power, without digging around the stump or cutting any roots. All stump machines heretofore are objectionable for their high cost, great weight, expense of operating, unwieldy dimensions, &c.; but mine is superior for the following reasons: — First,—it is much cheaper—a great consideration to farmers on new land. Price $50 for No. 2, and right to use. Second,—it is much lighter, requiring no team of oxen or horses to remove it from one stump to another. Two men can carry it in their hands. Third,—It requires no team to operate it; two men can work it by hand, and extract more stumps, and at very much less expense, generally requiring about two minutes to take up a common stump. Fourth,—It can be used when and where the ground is wet and soft, and does not punch up the grass field as with a heavy team. Fifth,—It is very simple in its construction and not liable to get out of order, and so small that it can be housed as conveniently as a plow or wheelbarrow. Sixth,—It will take up every stump in the field, not requiring one to anchor to, as is usual with the best stump machines. Seventh,—It does not turn the stump over, thereby taking up a large quantity of earth from one place and heaping it up on another, as is usual with other stump pullers, but leaves the stump poised at a convenient distance from the ground, until the soil can be rattled off the roots into the bed of the stump, saving the labor of shovelling the heap back into the hole in order to leave the field smooth. Three men will pull up from 50 to 100 large pine stumps per day after they have worked two or three days to get their hand in, thus costing about six cents per stump, for such as usually cost from fifty cents to one dollar each.

HORSE RADISH—(*Cochelaria armoracia.*)—This plant is commonly cultivated by planting *cuttings* taken from the top, or by small offsets from the sides of the main root, so divided as to retain a portion of the crown. The cuttings or offsets thus obtained should be planted out in

April, or as early in the spring as the state of the air and soil will admit, in rows of from two to two and a half feet asunder, and from six to ten inches between the plants. The soil should be warm, deep and rich, and the plants, when set, covered with two or three inches of chip manure, or forest scrapings, mixed with wood ashes or hydrate of lime. No weeds should be permitted to grow in the lines, and the surface of the soil should be kept firm and light.

For the New England Farmer.

THE PAST WINTER.

While fresh in memory, let us record what we think of it. Neither cold nor hot, wet nor dry, but on the whole, a very comfortable winter—generally favorable to moving about, and but little obstructed by drifts of snow. Eruptive diseases, such as scarlatina and measels, have been prevalent, but not of a severe type. In the world of business there has been great depression and suffering, growing out of overtrading and inflated prices. Some will, of consequence, learn a hard lesson, by severe discipline; such things have before happened, and still the world goes on. Without such trials, life would be a stupid monotony.

In the western horizon, Kansas, with all its horrors and awful forbodings, has emitted a livid glare, but still there remains a hope of a brighter day—the sun of freedom has not yet sunk to rise no more. P.

April 1, 1858.

REMARKS.—It is well, thus briefly to record the general characteristics of a past season. In some respects they have been quite singular during the winter just passed. While it has been unusually mild all along the northern Atlantic seaboard, it has been cold in the South and West, and attended with much snow. In the south of Europe, too, and as far down as Egypt, we learn that it has been cold without parallel, and that the Pyramids have been covered with snow, looming up and having all the appearance of mountains of snow!

There can be no chance in these changes, but are all ordered for some wise purpose which our limited knowledge does not enable us to comprehend.

For the New England Farmer.

INDIAN CORN.

Your correspondent "P." appears to have relinquished his first idea of "humbuggery" in the measurement of Indian corn in the county of Plymouth, and is sufficiently courteous in his apology for the remarks he first made on the subject, but still maintains that the rules which govern us are fallacious. The writer thinks he has been, to some extent, influenced, though perhaps unconsciously, by the severe and false strictures of a genius that leaps before it looks. The writer never made any report of 145 bushels to the acre; one of his successors, however, has reported 150, it is presumed with fidelity in the observance of established rules; and whatever doubts may be cherished of there being that amount of good merchantable corn on the acre, no candid man who examines our doings from the beginning, will deny that there has been constant improvement in the cultivation of Indian corn, of which the citizens of Plymouth county may innocently boast a little. If "P." will make some experiments in weighing corn, he may convince himself there is not quite so much danger of deception as he has imagined. Usually there are several frosts before the corn is harvested; if those occur before it is fully ripe, the corn becomes very light and can safely be purchased only by weight. There are a few seasons in which there are no autumnal frosts till after the period of harvest; corn is likely in these seasons to be fully ripened; if there should be some fields where much of it remains in a green state weighing would be a less certain proof of the number of bushels to the acre, not so much from its excessive weight, as excessive shrinkage of the kernels in the bin. M. A.

Pembroke, March 2, 1858.

For the New England Farmer.

SPRING CULTURE.

Our gardeners are already busy in planting their onions and other seeds. Experience has taught them the earlier they are started to grow, the better their chance of matured crops. The casualties are so many now-a-days, that no man may calculate with confidence, upon what the autumn will bring forth. The small snows of winter and smaller rains of spring, have left the earth in favorable condition for the reception of seed, where the frost is entirely out; though there will soon be need of more moisture to make the seeds germinate. I learn that the prospect of blossoms on the peach trees is uncommonly good. So far as I have observed, the same is true of the apple trees; though there is much reason to fear the ravages of the canker-worm, its forerunner having been abundant, wherever tar has been applied, which is the best preventive to our knowledge. The labors of the field demand constant vigilance. It is not enough to pulverize and fertilize the ground, to carefully select and insert the seed; but hostile assailants of infinite variety, have to be watched and guarded against. SOUTH DANVERS.

April 3, 1858.

REMARKS.—The above was received a little too late for the weekly of April 10th, when it ought to have appeared.

PEAT, LIME AND POTATOES.—Mr. Philip O'Reilly, of Providence, R. I., states that lime is of no avail in preventing potato rot, as he has tried it, and has seen it tried by others in vain. After many experiments, he has found that a handful of dry peat in powder or small pieces was the best preventive, and he thinks if it were generally applied, it would save ninety-nine in every hundred hills.—*Germantown Telegraph.*

For the New England Farmer.

MAKING AND PRESERVING MANURES.

Agriculture is the philosophy of the earth—manure, the touchstone of that philosophy. There are many false philosophers as well as false teachers at the present time. Many of the leading writers in the agricultural journals of the day speak of ammonia, as if it were the "breath and life" of agriculture, and when it shall have been arrested in its escape, the whole principle of the manufacture of manure had been accomplished. The monotonous strain of these writers still lumbers along in the moulded ruts of false theory, because it is easy to follow in the wake of others. Some men have a rare faculty of deducing deductions from *non*deducibles. This is the basis of false philosophy. The lines of such reasoning lead men to false conclusions, for the reasoning seems plausible, and it keeps the company of science. But few men will dispute that manure is the basis of all successful farming in New England. Levi Bartlett, in the Boston *Cultivator* of the 23d ult., gives his method of securing the liquid manures. "Of the several materials used, I prefer leaves and leaf mould, next muck, and lastly *sawdust;* not that there is any manurial value in sawdust in its crude state, but it is an excellent absorbent." I think there will be birth given to a new idea, when it can be found that manure is increased in quantity or value by being mixed with materials having no "manurial value" of themselves. The American *Agriculturist* of Jan. last, page 11th, speaking of sawdust as an absorbent says:—"If ammonia is one of the most powerful fertilizers, why should not the greatest pains be taken to save it? For this purpose, sawdust is just the thing." The *Country Gentleman*, of Dec. 18th, 1856, says:

"SAWDUST AS LITTER FOR STABLES.

"Some weeks ago an article appeared in the columns of this paper, in which sawdust was mentioned and recommended as a litter for stables, which possessed a superiority over straw in several particulars. We have just noticed a communication in the *Farmer and Visitor*, (Manchester, N. H.,) in which the writer mentions several other advantages in addition to those which were named in the article referred to in our columns. Among the points in which sawdust was found superior to straw by the person who had tried it in N. H., the first mentioned is, that it occupied less room in the barn, which is not unfrequently, as in the case in this paper, a matter of some importance. Next, sawdust is claimed as superior to straw, because it absorbs more of the fertilizing matters about the stable, *the person using it being very sure that the ammonial emanations were less strong on opening the doors in the morning than when straw litter was used.* Next, it is said to be much less of a chore to clean the stable, and also, that so little comparatively had to be thrown out that one load lasted a long time. The next thing named as an advantage of sawdust as litter is, that the manure heap occupied so much less space than when straw was used, and thus admitted more easily of being protected by a covering from the wasting effects of exposure to sun, wind and rains. Then again it is an obvious advantage to have in one's yard manure in as *small bulk as possible*, and this is effected to a great extent by the use of sawdust. *The same amount of fertilizing matter is, probably, contained in one load of manure made from sawdust, as there would be in two or three loads of that which had been made from straw litter.* Then, too, in the field it would be free from all the trouble which long manure frequently gives.

"With so many points of *superiority*, we think it probable that sawdust will, hereafter, be more generally used, at least in the neighborhood of saw-mills."

The italics are mine. For your son's sake, once more read the lines italicised. The recommendation of the use of sawdust, or any other powerful absorbent for the mere purpose of arresting the escape of ammonia is fallacious.

The exhausted lands of New England can only be redeemed by the application of large quantities of manure. To succeed in this great enterprise, the farmers should all be in possession of barn cellars and manure tanks of sufficient capacity to meet the exigencies of the case. All highly concentrated manures should be diluted in several times their bulk in water, and turned or pumped upon compost heaps prepared for the purpose. Leaves and leaf mould, muck and native soil, are decidedly the best materials for this purpose. (By native soil, I mean the subsoil, or that which has never been subjected to cultivation.) Night soil, hog's dung, sheep dung and even cattle's manure, when highly fed, should always be diluted in several times their bulk in water, and turned upon less fertilizing substances.

Every family of five persons, by carefully saving all the chamber lye and dropping of the privy and diluting it in ten times its bulk of water, and turning it upon a heap of muck and native soil, can make enough in a year to plant an acre of corn and manure it well. Doct. Dana says a cow, kept up, and all of her urine and hard excrements carefully saved, will do the same. The economical saving of the soap suds of the laundry is a valuable addition to the manure heap; put it in the tank with concentrated manures. The dilution of hog dung when highly fed, and night soil, in many times its bulk of water, and turned upon leaves and leaf mould, muck and native soil, cannot be too strongly impressed upon the attention of farmers.

Immense quantities of manure may be made by farmers in close proximity to large villages, by securing night soil, diluting and applying it in this manner. Here in New England, we can only measure the amount of crops in acres by the manure on hand. The farmers of the rich prairies and bottom lands of the West can compute their acres of wheat or corn by the amount of team and labor on hand.

I know farmers in this vicinity, who have within two hundred rods of their barns a forest that yields a hundred loads of leaves and leaf mould a year, that never used a thimble full in their lives to my knowledge, that mow acres and acres that produce eight or nine hundred pounds of hay per acre, and farms running out, and yet they are "good farmers."

When will farmers make use of the redundant materials of the earth in the cultivation of their farms? This is the basis upon which the farming of New England is to-day carried on. I believe

the great principle of the restoration of our soil to fertility is in the application of large quantities of manure—the diluting of all highly concentrated manures in water, and mixing them with such materials as will hold them in a state of solution until required by the growing plant. Not one particle of sawdust should enter into this practice. All heaps of compost and manure should be kept sufficiently wet by continued applications of liquid manures to resist rapid decomposition and rot down, not burn or fire-fang. Let this system be but in full practice, and these beautiful hills and valleys of New England will again blossom as the rose, and no farmer will need send to New York or Boston to buy fertilizers at ruinous prices. The mixing of night soil and muck in the cities by the Liebeg philosophers, and sending into the rural districts at two cents per pound, would be at an end.

"Othello's occupation's gone."

For the purpose of putting this philosophy in practice, let us suppose a case:—Say I have a barn eighty by forty feet, with a good cellar under the whole of it, for the purpose of making manure. In the fall and winter I haul in fifty loads of leaves and mould from the forests, fifty loads of good, finely pulverized muck, (two years dug,) fifty loads of native soil from the bank. I keep ten cows for the purpose of making butter and cheese, beside five hogs, one pair of oxen and some young stock. The cows are to have good English hay and one quart of corn meal per day, which materially increases the value of their manure. Now I have a tank of sufficient size to dilute all the manure, placed immediately under the stable, and so elevated as to be near the floor and carry the diluted manure to every part of the cellar by means of a trough attached to the same. Every morning shovel the manure of the ten cows and oxen into the vat, and add just water enough to hold it in a state of solution, throwing the bedding and long manure of the young stock upon the heap below. Once a week put in your hog dung and night soil, with water enough to make the whole sufficiently thin to pour upon the heap below. Throw it over on stormy or other days, and add a new supply of material as often as needed. The amount of manure made in this way in a year, by housing your cows in summer, would be surprising.

This is the system that will redeem the soil of New England back to its primitive state of fertility. LEWIS L. PIERCE.

East Jeffrey, N. H., Feb., 1858.

MANAGEMENT OF THE BARN.

Let the utmost neatness be observed in the management of the barn. No more hay or other fodder should be thrown on the floor at once than is requisite to supply one feed. By throwing large quantities from the mows or scaffoldings, there is an unavoidable loss from the drying of the fibre, which renders it less palatable to the animals, as well as less nutritious. Sweeping the floor daily promotes cleanliness, and conduces to the health and consequently the comfort of animals. The "tie-ups" and "stanchels," as well as the mangers, cribs, &c., should be daily cleaned out and frequently washed. An occasional whitewashing should be given to the ceilings and partitions; its sanatory effects are well-known, and of a nature too indisputably obvious to admit of doubt. Vermin rarely infest barns or animals treated in this way. The floors of all "tie-ups" should always be of stones—large flags—which can be thoroughly cleansed by the diffusion of water, and which do not become impregnated with the ammoniacal matter contained in the urine, and the fœtid animal matters of the excrement.

For the New England Farmer.

RECLAIMING LIGHT LANDS.

How can this best be done? There are hundreds of acres, all about, only used to hold creation together, that might be made beautiful and valuable, if we only knew how to do it. Some years since, Mr. Wm. Clark, of Northampton, Mass., said he had reclaimed such lands, and brought them to produce respectable crops. How this was done, I do not remember. But I presume you will, Mr. Editor, as it is your business to catch the manners living as they rise, and to bring to light what others may have forgotten. As you live in a region where the soil is light and sandy, if you will tell me how such a soil can economically be brought into a decent and productive condition, you will not only do me a favor, but also many other anxious

March 15, 1858. INQUIRERS.

REMARKS.—Certainly, Mr. "Inquirer," we can tell you how to reclaim such lands, even without carrying a load of manure upon them. But will you be patient, and follow the plan? and can you afford to wait for the result?

We will suppose that the land is sandy, or perhaps a sandy loam, that was once covered with pines which were cut off, and the land "ryed to death," and then pastured to death, which is full as bad as was the old Irish Judge, who sentenced a man to "be hung and pay forty shillings." Manure the land if you can, if not, plow with one horse, or two if you choose, but do not go down more than four inches, sow rye and harrow in. When the crop is ripe, thresh on the field, and keep what grain you can get as a *compensation for your labor!* Now take the rye straw, and let a man drop it before each furrow, and the plow follows immediately and covers it up.

Follow this course three years, and then sow with clover. Cut two crops of this, and the second year plow again and sow to rye, and if the operation has been well managed, you will probably get *twenty-five* bushels of rye per acre, and your land be in pretty good condition for any crop with common manuring. We can show you twenty-five acres that was almost *moving sand*, reclaimed in this way into fair and fertile fields. Are you encouraged?

We do not remember how Mr. Clark reclaimed, and have not the leisure at this time to look up his account of doing it.

HUMBOLDT ON "SYMMES' HOLE."

It has been computed at what depths liquid and even gaseous substances, from the pressure of their own superimposed strata, would attain a density exceeding that of platinum, or of iridium; and in order to bring the actual degree of ellipticity, which was known within very narrow limits, into harmony with the hypothesis of the infinite compressibility of matter, Leslie conceived the interior of the earth to be a hollow sphere, filled with "an imponderable fluid of enormous expansive force." Such rash and arbitrary conjectures have given rise, in wholly unscientific circles, to still more fantastic notions. The hollow sphere has been peopled with plants and animals, on which two small subterranean planets, Pluto and Proserpine, were supposed to shed a mild light. A constantly uniform temperature is supposed to prevail in these inner regions, and the air being rendered self-luminous by compression, might well render the planets of this lower world unnecessary. Near the North Pole, in 82 degree of latitude, an enormous opening is imagined, from which the polar light visible in Aurora streams forth, and by which a descent into the hollow sphere may be made. Sir Humphrey Davy and myself were repeatedly and publicly invited by Capt. Symmes to undertake this subterranean expedition; so powerful is the morbid inclination of men to fill unseen spaces with shapes of wonder, regardless of the counter-evidence of well-established facts, or universally recognized natural laws. Even the celebrated Halley, at the end of the 17th century, hollowed out the earth in his magnetic speculation; a freely rotating subterranean nucleus was supposed to occasion, by its varying positions, the diurnal and annual changes of the magnetic declination. It has been attempted, in our own day, in tedious earnest, to invest with a scientific garb that which in the pages of the ingenious Holberg was an amusing fiction.—*Humboldt's Cosmos.*

For the New England Farmer.

SHOEING HENS.

A friend of ours, boarding in the country, found his hostess one morning busily engaged in making numerous small woolen bags, of singular shape. Upon inquiry he was informed that they were shoes for hens, to prevent them from scratching. The lady stated that it had been her practice for years to shoe her hens, and so save her garden. These "shoes," (I believe they are not yet patented,) were of woolen, made somewhat of the shape of a fowl's foot, having an opening left sufficiently large to thrust in the foot with ease, after which it is closed with a needle and sewed tightly on, extending about an inch up the leg. Our friend observed that some of the biddies, possibly conceited with their new honors, appeared to tread as though walking on eggs—particularly was this the case when from the width of the shoe one would conceive that their toes might be a little pinched.

Thus, Mr. Editor, you see the progress of civilization; another class of bipeds has stepped into shoes! how far in the future pantalettes and bonnets lie hid let no scoffer dare say. "Puss in boots," as every one knows, was all a sham; but, for a certainty, biddy in shoes is no longer a fable. When snarling Diogenes hurried into the academy with "Plato's man," we all know what very naturally followed, for in his haste he had forgotten even to put his shoes on!

The original idea of this lady may be of value to those amateurs who desire at the same time a fancy garden and fancy fowls; for it is generally agreed that, baring their scratching propensities, fowls are of great advantage to grounds, from the immense quantity of vermin which they destroy. If, then, by this contrivance of bagging their toes, they can be prevented from scratching, we may thus secure, on a barn-yard scale, the political desideratum, the largest liberty compatible with the greatest safety.

Yours respectfully, J. J. H. GREGORY.

Marblehead, Mass.

For the New England Farmer.

SUGAR MAKING.

"SUGARING OFF."

Be sure first that your syrup is thoroughly settled, so that it is translucent and wholly free from impurities. If made too thick for this, it can be reduced with sap or water; but make no sugar from it, till you have given a fair chance for the fine particles of dirt that will unavoidably get in, to deposit themselves.

A pan is the best thing to sugar off with. For a batch of 100 or 120 pounds, use the front pan over the arch you boil sap in. A small pan, two feet square, and nine inches high, is very convenient for a batch of forty pounds, (or less) to be made into small cakes. This may be set in a temporary arch of brick, in your back kitchen, (if you have one with a fire-place and a wide hearth before it.) Now, if you have such syrup as you can easily make, and ought to make, boil it down; but save your eggs to go with your bacon, your skimmed milk for the pig, the saleratus for biscuit and batter-cakes, and your lime for mortar, but keep them all out of such syrup as *should* and can be made until late in the season. When the syrup is just commencing to boil, remove carefully all the skum, &c., which rises to the surface. If it will not stand fire well, and threatens to run over, a bit of fresh butter will at once cure it of this propensity, unless your sap was sour. You can use snow to tell when it is done; but it is best tried with a bow tied in the end of a green twig, or in a small wire with a handle of wood. Let this bow or ring be about three-fourths of an inch in diameter. When the syrup is sufficiently reduced for wet sugar, if this be dipped in, it will fill, and you can blow "feathers" from it, that will collapse as soon as formed. If they retain their shape, and will fly, or crumble when struck by the feathering stick, it is dry enough to be made into small cakes that will not drain at all. A little practice is needful to determine when it is in just the right condition; and regard must be had, too, to the temperature and dryness of the air in which you blow these sugar-feathers. When done to suit you, lift off the fire, and turn it into a brass or copper kettle. Stir it briskly until it granulates sufficiently, but be careful not to wait too long, if you wish to put it into small moulds. This requires rapid and skilful fingers.

The longer and more vigorously you stir it, however, the whiter your cakes will be. Prepare your moulds before you remove the sugar from the fire, by applying fresh cream to them with a small brush. Be sure that the cream is always sweet.

THE SETTLINGS AND SKIMMINGS

are all to be saved in a tub by themselves, regard being had to the quality of the syrup from which they were taken. The settlings at the bottom of several tubs may be poured together, slightly reduced with sap, and in a day or two the pure sweet may be poured off. After making 1000 pounds, I have had the "settlings" all contained in a four gallon tub, and the "skimmings" in a two quart basin. The best way to deal with these is to take six or eight gallons of them, turn them into a barrel of sap, (in a half hogshead tub, or something similar,) stir them up thoroughly; then throw about four quarts of dry plaster of Paris upon the surface, and leave it to settle. The pulverized gypsum in its slow descent will precipitate with itself the lighter minute impurities that float in the sap. At the proper time dip or turn this off, and call these settlings finished. This will make a sugar of second quality.

PAILS FOR GATHERING.

Let these be made of tin, smaller at top than bottom, with a half inch rim on the bottom to prevent their sliding. On the one side should be a tip like that upon a gallon measure, and a handle upon the other to turn them with. Those for a man should hold about fourteen quarts, for boys, seven to ten quarts. Such pails will not become heavy by water-soaking.

Sap at a distance from your arch is most easily gathered with the help of horse or oxen. If you use an open cask, it should be largest at the bottom. I think barrels preferable, since you can easily unload them into your storage tub. A large cask is not so easily managed, unless you *dip* the sap, or a part of it; and this cannot well be done without waste. The barrels should be carried on a rack purposely made for them. Your large tubs can easily be so arranged, that the sap will run from them directly into the boilers, if you choose it.

STOPPING UP THE TREES.

When you gather your tubs at the close of the season, it will be a good thing if you will stop up the holes, at least in your young trees, with closely fitting pine plugs. Make them an inch long, and every one of exactly the right size. To secure in all of them a perfect fit, bore two or three holes in a hickory stick, or bit of plank, with the same bit you use to tap your trees, and make all the plugs pass through these, seeing to it that they touch at every point. The boys can easily make as many of these as you will need, on stormy days, or in the evenings. It is no long job, if the boys have sharp knives and free pine. You will saw them off a little obliquely, since you did not tap the trees with a perpendicular bore; and in stopping up the holes, you will take care to drive them *just inside the bark*, so that they will fit smoothly with the outer wood. These will keep out the water and the air, and cause the tree to heal sooner, and with a less scar, than when left as they usually are.

Some like to tell great stories. I can easily show that sugar-making is profitable, though many think it is not. I have to boil with three fires, on account of my trees being so widely scattered; but one little place of 140 trees of second growth, all upon an acre and a half of land, is tended by a lad of thirteen years. He gathers by hand, and boils the sap for fifty pounds per day, and often more, with time to spare for reading the newspapers. This he does in two copper pans, each three feet square, upon an ox-bow arch like that described in number one.

ELIJAH H. GOODRICH.

Hinsdale, Mass., March, 1858.

For the New England Farmer.

CONTRIBUTIONS BY THE STATE TO COUNTY SOCIETIES.

It is now about forty years since organizations of this kind were first instituted. Then they were thought so desirable that an offer was made of *twenty-five per cent. annually* on such fund as should be raised, not exceeding $3000. In this way $600 a year has accrued to each county society; and in several of the counties two, three and even four societies have been established; so that like territory and like population, in some sections, draws four times as much money from the treasury of the State as in others. Instance, while Essex draws only $600, Worcester draws $2400. This is unequal and unjust, and if not remedied will be a growing cause of dissatisfaction. Sooner than have such inequalities remain, I would leave the societies to their own resources for support, and am by no means sure that they are not quite as able to go alone as the State is to lead them. I would not say anything rashly, to the prejudice of any existing society, nor would I wish the State to become bankrupt in support of any particular class of citizens, even though they were more to be relied on, in time of need, than any other, as I think the farmers are.

ESSEX.

March 18, 1858.

"WILL ROOTS PAY?"

I see that two of your correspondents have opened quite strongly on the negative of this question. I take the affirmative—at least, till our markets are better supplied than at present.

Root culture, like fruit culture, does not keep pace with the demand—so roots bring in market much more than it costs to raise them—and, perhaps much more than they are worth to feed to stock, unless it be, as one of the gentlemen on the negative has suggested, *"for medicine!"*

On the basis of nutritive value assumed by "P.," carrots would be more profitable to raise in this region, than corn. We can raise enough more than ten times the quantity, to pay for the extra labor required for the carrots.

But a writer in a recent *Rural*, in trying to show that *potatoes* are a more profitable crop than *wheat*, ranks the nutritive value of the tuber nearly equal to the grain. Now, I believe *carrots* will as nearly equal *corn*, as *potatoes* will *wheat*, in the comparative value of food for man or beast.

One farmer in our town has taken carrots from my premises before they were housed, at

twenty-three cents per bushel, when corn was worth seventy-five, and good hay could be bought at seven dollars per ton, (sixty pounds for twenty cents,) to feed his stock with. Another brought me corn, in the ear, in the spring, and took carrots, bushel for bushel, to feed his horses.

I can pay interest on land and taxes, within the corporation of Attica village, and raise carrots for ten cents per bushel, one season with another. On cheaper land, exempt from corporation taxes, I think farmers generally can produce them for from four to eight cents, and pay all charges.

"P." finds trouble in keeping them. Build, in the cellar of the barn, cribs, such as you would use for corn, and I think they will keep well. A slight freeze will not hurt them. A little sand scattered in among them, will tend to keep them fresh.

I have spoken only of carrots, as this root is at once the best, the surest and the most prolific crop. But to supply our city and village markets, every kind of edible "root" will pay well, as those who try it will know.

As to the "medicine" for stock, I like the idea —but have no fear of its bad effects in Allopathic doses. My cow is not harmed by a half bushel a day. It "*doeth good, like a medicine,*" as Solomon says of a merry heart, and as I think all "medicines," we take, should do.—*Rural New-Yorker.*

For the New England Farmer.

WOODLAND.

There seems to be a growing conviction in the minds of intelligent observers that too much land has been "cleared up," in our vicinity at least. Large tracts of "plain" land are often seen by the traveller, which hardly pay for fencing. Grass grows sparingly on such lands through the moist weather of June, but the hot summer months dry up the half-covered soil so thoroughly that vegetation nearly ceases.

Having spent much time the past month in the "woods," my attention has been directed to the comparative value of woodland over other open fields similarly situated.

In the first place the *climate* of the forest is more favorable to vegetable growth. In winter the ground freezes to a less depth than in pasture land. There is always more or less rubbish on the surface—brush, twigs and leaves, which protect tender roots from injurious freezing. Moisture and heat are indispensable conditions for rapid growth. Every one has observed how much faster the grass gains when it has become high enough to remain damp till mid-day. Now in the woods there is sufficient heat for the growth of trees in summer, and the ground in the shade of the thick branches, covered with decaying vegetable mould, is in the best possible condition.

The effects of boisterous winds are much less unfavorable on forest lands than on open fields. Storms of rain and driving showers are broken by groves of trees, and the needed moisture drops softly down upon the spongy earth.

In the mysterious operations of nature the atmosphere receives from the earth invisible gases, which can only be arrested, fixed and returned to the earth, through vegetable forms.

Now every leaf is a lung, whose principal office is to breathe the passing air, and transform, by its wonderfully delicate functions, the wandering atoms into solid oak. The grass, the grain, spread their network but a few feet upwards. But through what a space do the forest giants fling their broad arms!

The demand for wood and timber will probably continually increase until the price reaches that of European countries. In Paris wood is sold in small packages by weight. In Iceland no fuel is used except for cooking. In Buenos Ayres wood is so scarce that the common peach tree is cultivated for fuel. Immense fields are planted, and cut down when of sufficient size.

But how different the practice in New England. A piece of woodland is cut over. The following summer it is burned. Now in burning there is always a great waste. The light, combustible matter, which if let alone would gradually decay and become wood again, is consumed; and the ground retains a slight covering of ashes, instead of a heavy mulching. The land, is plowed with a "breaking up" team, which proves no joke to him at the handles. Rye is sown, which grows, generally, luxuriantly, stimulated by the ashes. As the thrifty sprouts come up they are faithfully grubbed down, until discouraged. Oftentimes a second crop of rye is sown, which comes up sparingly. Finally this beautiful piece of woodland becomes the "old field," or "the plain," ornamented with mullens and protected by blackberry vines!

The fact seems too often lost sight of, that, when the young trees of a forest are cut off with the large, (as they always should be, that no bruised or broken sapling remain,) the sprouts which spring up are always unusually thrifty. They shoot up in a few years straight and promising. Now is there not a great waste in destroying such roots, so full of vitality, all alive and planted?

The sad mistake of killing the goose that lay the golden eggs is often made by the owners of woodland. Rocky hillsides, only accessible in deep snows, are often brought into grass by great labor. And "pine plains," where nothing but pines are profitable, are cleared of these.

The fact is, a tree is not looked upon in its true light. Dr. Holmes speaks of the lofty elms as "nature's flagstaffs." He is to be pitied who looks with no feelings of admiration upon a beautiful grove. Who can pass the attractive residence of our distinguished townsman, R. W. Emerson, without acknowledging the marvellous beauty of trees skilfully planted? But this is a digression. I wish to speak of trees only as a source of gain.

I know that there are hundreds of acres of poor pasture, now of trifling profit to the owner, which were better in woodland. Just think, a piece of woods takes care of itself. There is no building of fence, or particular risk about the property.

To derive the greatest profit from any land, it is necessary to have a good deal growing on it. The gardener plants potatoes between his rows of peas, so that when the peas are out of the way the land may be still occupied. So turnips are sown among corn on stony land, and gain prodigiously after the frost has killed the corn.

Now I would leave all the land to woods not convenient to till, or fertile enough to yield good pasturage. By so doing a great addition would be made to the wealth to be enjoyed by the next generation.

There can never be another period while man exists upon the earth when coal-fields and peat bogs will be formed by a luxuriant vegetation. It is but a needed economy to save the woods, and allow as many trees as possible to grow for the future. W. D. B.

Concord, Mass., March, 1858.

For the New England Farmer.

EXPERIMENTS WITH PEAS.

MR. EDITOR:—Last spring I received from a friend the following new varieties of peas—a description of which I send you, together with samples of the same.

Daniel O'Leary.—Planted May 10th. First mess gathered July 13th. It does not seem to be a good bearer.

Harrison's Climax.—Planted May 12th. First mess gathered July 22d. Very productive and delicious, and bids fair to become a valuable variety. Wrinkled and much resembling in appearance the Champion of England. Height 2½ feet.

Harrison's Alliance.—This, with the one above and two following, were planted at the same time. First mess gathered July 20th. It is a wrinkled variety of a straw color, fine quality and nearly equal to the Climax. Height 2½ feet.

Harrison's Perfection.—First mess gathered July 20th. A very good pea, and like the others, great bearers—one vine producing seventeen cods. Partially wrinkled and of a straw color. Height 2½ feet.

Harrison's Glory.—A green variety, partially wrinkled, of splendid foliage, good quality and much promise. First mess gathered July 22d. Height 2½ feet.

Dwarf Green Mammoth.—Planted April 29th. First mess gathered July 30th. It does not seem suited to our climate. Many of the cods were imperfectly formed, and in most instances contained but three or four peas in each. The expectation which we had formed of it was far from being realized. Height 2½ to 3 feet.

Waite's King of the Marrows.—This is a pea of high character, but its growth has been so wild and luxuriant that we have not been able to fix its period of maturity. Two feet and a half we were told was its usual height—but in our grounds some of the vines measured nine feet and a half. One of the largest and finest peas.

Of all the European varieties which we have ever tested, none (everything considered) seem so well adapted to our climate as the Champion of England. It often fails, however, in very dry locations. Rich, moist land is its delight, and on such only can it be grown in its greatest perfection. A decided advantage is gained we think by sticking peas. They continue longer, are sweeter, more prolific and less liable to mildew than those suffered to lay on the ground. From July 10th to Oct. 20th, we were by successive planting enabled to pick a mess of peas every day. Yours truly, ANDREW LACKEY.

For the New England Farmer.

FLAX—POTATOES AND PEAS.

MR. BROWN:—Last summer I accidentally met Mr. John Boyle, who is mentioned below in an editorial notice from the *Mercantile Journal* of Jan. 5th, 1858, published at Belfast, in Ireland.

Mr. Boyle is a very intelligent man, of Irish birth, now residing at Leeds, in England, where he is employed by a company to introduce the culture of flax. He and I had "walks and talks" together through old Ireland, and I have recently received from him a letter making inquiries about the flax culture in this country, and the prospect of success if he should come here. We cultivate very little flax hereabouts, and if you or any reader of the *Farmer* can give any information on the subject, I should like to see it published. Mr. Boyle also sent me the paper from which I cut the following, worth noticing for the singularity of the leading thought, if nothing more.

H. F. FRENCH.

Exeter, N. H., Feb. 15, 1858.

THE POTATO DISEASE.

We publish in our seventh page a very important letter, addressed to the editors of the *Leeds Mercury*, pointing out an easy, and, as the writer reports, effectual remedy for this destructive malady. Our attention was drawn to this letter by Mr. John Boyle, of Leeds, who knows Mr. Jackson well, and has every confidence in his report. We strongly recommend our agricultural friends to try Mr. Jackson's plan next spring, as we have no doubt of it leading to satisfactory results.

REMEDY FOR THE POTATO DISEASE.

To the Editors of the Leeds Mercury:

GENTLEMEN:—In your supplement of the 28th November last, you have an extract from a letter in the *Agricultural Gazette*, respecting the insertion of peas into potato sets, with a view to counteract the disease which is and has been so very prevalent in the growing of that very important root. Eleven years ago, when that disease had made its appearance, and was exciting a great deal of consternation in the minds of both potato growers and consumers, I made the same experiment. I do not lay any claim to originality. I believe it emanated with an English farmer in Belgium, and was the result of the merest accident. Some idle boys in his field, who ought to have been setting potatoes, amused themselves by thrusting hard peas which they had in their pockets into the sets without the farmer's knowledge, and planted them in that state. The farmer's attention was directed to the fact by his immense yield of the peas, growing in connection with his potatoes, and his astonishment was still greater when, on taking up his crop, these were all sound and free from disease, while he was suffering very much in other parts of the field. By making inquiries amongst his servants, he discovered how the circumstance had arisen, and communicated the whole facts to the English newspapers. Mr. Joseph Bower, chemist, of Hunslet,

had read the account in the papers, and informed me of it. For some time before I had paid a good deal of attention to the subject of the potato disease, but my inquiries had certainly not gone in that direction. Immediately, however, I set to work, to endeavor to find a solution to the new problem. I submitted many samples of diseased potatoes and of sound potatoes to careful chemical analysis, and I invariably found that the diseased potatoes, as compared with the healthy ones, exhibited a marked deficiency of nitrogen and of nitrogenised matter in every instance, and also a great deficiency as compared with the published analysis of the potato, by Liebig and others, made some years before. From that result, then, I inferred that the potato was set inherently deficient in nitrogen, being inoculated with a substance intrinsically rich in that element, as peas are during the mutual decomposition and chemical change of the two substances in the process of their germination and growth, sufficient evolution of nitrogen from the pea would take place, and being absorbed by combining with and supplying the deficiency of that element in the potato, communicating, as it were, its equivalent in that way, would counteract its tendency to disease. I then tried the experiment practically. I obtained potatoes of several kinds for sets whole; I then took peas (Bishop's dwarfs,) and inserted four or five (according to the size of the potato,) deep in the fleshy part of the set, taking care to avoid the eyes. I then planted them in my garden at Hunslet, in the usual way. Mr. Bower, and several other gentlemen at Hunslet, will well recollect watching with great interest the growth and development of the compound crop. The result was perfect success. I had a very extraordinary yield of peas. When the potatoes were taken up, they were a large yield, with a very few small ones, and every potato was healthy and free from every trace of disease. Those potatoes were laid on a wooden floor in a room in my dyehouse, where they remained all winter until the following spring; they were then examined, and found to be all sound and healthy, and were employed as sets again in the same way, with the same result. I am, &c.,

JOHN JACKSON.

Knostroplane Bank, Leeds, Dec. 1, 1857.

AMERICAN POMOLOGICAL SOCIETY.

We learn that the *Seventh Session of the American Pomological Society* will be held in the city of New York, and that Tuesday, the 14th of September next, has been fixed by the President, Hon. MARSHALL P. WILDER, as the day for its commencement. This society has already done much good in fixing the nomenclature of fruits, in promoting the growth of those that are worthy of cultivation, and in rejecting those that are worthless. Through its agency, the individual farmer may save the trouble, cost and vexation of testing fruits for himself, which others have tested and found good for nothing. Circulars will undoubtedly be issued in due time, giving particulars of the intended gathering.

For the New England Farmer.

QUINCE ON PASTURE LAND—ELMS—BLUEBERRIES.

MR. BROWN:—Am I right in the opinion that the culture of the *Quince* may be as profitable, and even more so, than that of the apple? (1.) I know some quince bushes that have been sadly neglected, yet have borne very fair crops in the two last years, while apples in this vicinity have been very scarce. I know the quince bush is a favorite of the borer, but is the fruit as liable to be attacked by the curculio as is the apple? The latter is ruinous to the apple crop here, and, of the two, seems to be a hundred times the worse.

To fit a piece of pasture, never yet cultivated, for a quince orchard, would the plowing in of green crops and subsoiling three or four years be a sufficient preparation without any other manure? (2.)

Two years ago (like a dunce, and with plenty of company, too,) I transplanted some large elm trees, thinking to gain some years over small ones in size. The tops I cut off to match the roots unavoidably lost, and as these stumps were not covered in any way, they are now rotting. Will not this cause a lasting defect in the trees, by the rot continuing down? (3.) If one is planting shade trees for beauty, should they not be as particular in the choice of handsome and thrifty trees as in the selection of fruit trees? (4.) For myself I would rather see a naked door-yard and road-side than a homely tree. My observations, in the two years since I set my trees, have led me to think that it will be a lasting source of regret to me if I do not pull up my trees without delay, and plant good ones. You must have noticed this defect: and now your opinion, if you please.

Can the common blueberry be much improved in size by cultivation? Or can a superior fruit be raised only by seedlings? (5.)

BENJ. CHASE, JR.

Manchester, N. H., March, 1858.

REMARKS—(1.) Where there is a demand for the Quince, at a fair price, we have no doubt it might be cultivated, even with more profit than the apple affords. Quinces, however, are used only in quite limited quantities, and the supply may easily be carried beyond the demand.

(2.) The preparation of pasture land for the quince as you suggest would be sufficient for a time—but as the trees or bushes should increase, spread their roots and produce fruit, they would need dressing.

(3.) If the elms you speak of should grow rapidly, the wound made might be covered with a new growth, but a defect would always remain, and one which might prove ruinous to the tree after it had attained considerable size and assumed a beautiful form.

(4.) Certainly. It costs no more to take up and transplant a handsome tree than it does a deformed one. If we have committed an error, the sooner it is corrected the better; we believe that rule holds good in physics as well as in ethics.

(5.) Cannot tell you. The common high blackberry may be greatly improved by garden cultivation; that is, improved in size, but not in flavor. May not the blueberry as well? Try it, will you?

For the New England Farmer.

WHAT CAN WIVES AND DAUGHTERS DO FOR AGRICULTURE?

BY SUSIE SUMMERFIELD.

"Nothing towards helping us, while they lavishly spend our hard earnings," exclaims an aged farmer by some cozy fireside, with his weekly paper in his hand. "Ha! ha! *women* help us farmers greatly, with their high notions, with their imported fabrics and dainty airs! Humph! they only burden us with expense, knock us with their elbows, crowd us with their hoops, and disdain us in their pride, now-a-days; but, in my youthful days, a woman proved herself a genuine help-meet, and not a help-eat. Then, wives and daughters were like stars in our homes, and made hearts vibrate with delight by their cheerful smiles, soul-meaning sympathy and earnest labor. Eh! time and again, I'm forced to say, 'O, would I were a boy again,' that times were now as of old, when our women were to us, what roses are to the garden; shedding joy in rich profusion. Say, Charley, don't *you get married*, till you find a lady *worthy* of the title, a New England daughter."

Thus does a wise old farmer cogitate and advise in his easy-chair, over his paper. But spare your sarcasm and judgment against us for a moment, dear sir, while Susie chats with thee, and attempts to prove that woman in this age, can be just as wise, useful and truly estimable as in the days of our grandmothers. Though the spinning-wheel and shuttle have given place to the factory and steam-power, and invention has lightened labors of all kinds, yet our sex have a mighty power to exercise, even in the art of agriculture.

When the Creator had made Eden, with its purple clusters, and luscious fruits, and dewy flowers, when he had made man to cultivate, govern and enjoy it, he then made woman as a boon as Heaven's best gift. She has proved herself to be such, in different ages, and in diversified spheres.

While our forefathers made heavy strokes towards civilization, our primitive mothers acted well their parts, in humility and sweet confidence. In times of contest and privation, womanly counsel and her constancy shone conspicuously in every-day scenes, and accomplished noble deeds.

On missionary grounds she has proved herself competent for arduous labor, and granted cheerful aid in irksome tasks. In modern times, the walks of literature have been traversed, yea, adorned by women of refined sensibilities and great mental endowments. Even our own age has been memorialized by heroic deeds of love and charity, from a Florence Nightengale and Grace Darling.

But you, Sir Farmer, exclaim, "what has all this to do with us and our occupation?"

It proves her potency and ability. Now we wish her to *realize* that she possesses such merits, and *to feel as if she had something to do in our era;* something to effect, not only in the refinements of elegant society, but something to do in behalf of agriculture, and then this truly noble and compensating occupation will become elevated accordingly as it deserves. *She must believe that her Creator has given her a mental capacity and a physical organization to be kept in healthful condition by use.* Then, she must have a right estimation of life, of the demands of society, and of true merit, wherever it is found.

If our New England ladies would but place a proper estimate upon our farmers and farming, which actually is the stay and staff of our land, then society in general would properly estimate and respect it.

Agriculture invites investigation into the most intricate labyrinths of nature, and what woman can meet with injury by coming in contact with the simple, yet wonderful beauty of the natural world? If a husband or son labors in the harvest field or verdant meadow, to supply his family with their daily food, with nought but the echoes, whispering breezes, or breathing murmurs from nature's unseen choir to molest him; or whether he toils upon the mountain's brow, in the solemn silence of dense forests, or amidst waves of gold, where the ripened grain bends in seeming adoration to the god of plenty, he meets with nought in his submissive toil which should deteriorate him one iota, in the estimation of the gentler sex.

The farmer at the plow, with his striped frock, engaged in honest toil, is as worthy of a smiling recognition, as is his wife in her flounced silks upon the fashionable promenade. The farmer's son, whose imbrowned brow is damp with the sweat of labor, is as worthy of admiration, as is the farmer's daughter at the boarding-school, with dewy lips, and rose-tinted fingers.

Futurity will prove the necessity of more extensive agriculture in our country, as extent of territory and her population increases. During the recent convulsion in our financial and commercial affairs, the permanency and lucrativeness of farming remained stable; and now is the time for woman to show that she has a right appreciation of this worthy occupation, by encouraging those of the other sex to engage in it.

American agriculture has much to accomplish ere it becomes perfected, and American ladies should be proud to act well their part in its progression. It is just as meritorious in a young or elderly lady to manifest an interest in the progression of the science of agriculture, as to be interested in the literature of the day.

It is natural that man should love womanly sympathy and encouragement, in whatever sphere of life he moves; and are not our hardy, strong-minded yeomen, as worthy of approbation from our sex, as are financiers in the commercial world, or clerks in the counting-room, or shallow-pated fops, that have not one-half of the intellectual or moral worth about them, as has the most brawny greenhorn in christendom?

I once read of some fashionable exquisites at Saratoga becoming shocked because they chanced to sit at the table with an intelligent farmer and his family, "*for it was so vulgar to eat with farmers!*" We hardly believe they had as correct ideas as the spirits who communicated to a medi-

um, *"that Webster was apt to make mistakes in his politics and his dictionary too!"*

A worthy young man once remarked to me, "that he would stay on the farm if the young ladies did not turn up their noses to farmers." Young ladies, you must see to it that this error be corrected in your circles. Farmers usually provide the best of homes, and make the best of husbands. Now young farmers must advocate improvement in agriculture, elevation in mind, refinement in manners, and young ladies should advocate them too. God never designed woman as a mere toy, to be stowed away in palaces. Farmers have few palaces, and need no lisping fashionable belle to preside at their hearth-stone. They need assistance from vigorous minds and willing hands, while the natural vivacity of womanly hearts should be their sun-light, which shall shed a cheerful glow, and even penetrate the depths of manly souls, coax tired laborers and anxious business men to relaxation and innocent pleasure. When our young ladies are educated to become efficient co-workers with the other sex, a new feature in society will be developed, while woman will endear herself by her graceful virtues to man, and prove his guiding star through the myths and mirage of life's weary pilgrimage. When we find feminine talent and sympathy directed into a right channel, we may then expect that the intellectual, moral and physical being of future generations will become elevated, and truth more often triumphing over error.

It is no ignominious thing to our farmers' wives and daughters, that they understand the distinction between a superior and inferior breed of animals, which exists in the farmer's herd or flock. It is as praiseworthy for a young Miss to knit a sock, produce golden lumps of butter or a tempting cheese, or loaves of bread of feathery lightness, as it is to trace fairy flowers and forms upon the canvass with the needle and crewel; or upon bristol-board with the paint-brush, or to touch the ivory keys of the piano. It is as graceful in the young maiden to dance over the newly mown meadow, while she administers to the wants of the heated and thirsty laborer swinging his scythe, as it is for her to "tread the light fantastic toe" in a dizzy whirl in the fashionable ball-room.

A complaint is made that our young men emigrate to the West, but we have ladies enough to stop them, if they will *try for it*. Ladies must not treat farmers as drudges. They must talk with them, calculate with them in their estimation of loss and profit. Must admire with them their broad, well-tilled acres; their sleek oxen, fine horses; laugh with them beneath the droppings of the thrifty vine or fruit tree of their own planting; sympathize with them in their cares, soothe them in their weariness; and then, we will answer for it, that the wise old farmer will cease to expatiate upon the merits of the women of his youthful days, and his son "Charlie" will be glad to catch one for a wife, while New England daughters of the present age shall redeem New England feminine character!

FRANKLIN COUNTY AGRICULTURAL SOCIETY.—By the considerate attention of JAMES S. GRENNELL, Esq., of Greenfield, and Secretary of the Society, we have before us its *Eighth Annual Report*. Coming through the hands of Mr. Grennell, of course it is made up with care, and presents a handsome appearance; and this, with its papers on various topics, will reflect permanent credit and character on the association. The report of the committee on "Improving Pasture Lands," "on Subsoiling," on "Improved Meadow and Swamp Land," on "Fruit Trees," "Manures," "Grain and Root Crops," and several on "Stock," contain valuable information and suggestions, and are worthy of frequent reference. The officers of the society for 1858 are:

Z. S. RAYMOND, of Greenfield, *President.*
T. M. STOUGHTON, Gill, } *Vice Presidents.*
MOSES STEBBINS, So. Deerfield, }
JAMES S. GRENNELL, of Greenfield, *Sec. and Treas.*

THE FLOWERS.

The ancients early remarked that different trees—especially different date trees—produced differently developed flowers. The discrepancy consisted simply in the flowers of one tree being provided with several minute organs, to which botanists apply the term *"pistils."* These trees were, they remarked, invariably destitute of fruit, unless growing in the immediate vicinity of trees differently constituted, and which produces flowers differently constructed, and containing in their central organization certain members to which is applied the technical name *"stamens."*

The celebrated naturalist, LINNÆUS, has arranged the whole vegetable kingdom into twenty-four classes—each class being distinguished by the number of the generic or sexual organs found in each flower. His system is admirably adapted to assist the memory, and at the same time denotes with accuracy and clearness the analogies of all plants. Philosophers, in every age have indulged in many singular fancies regarding flowers, and their uses and modes of contributing to the economy of vegetable reproduction.

Dr. DARWIN, himself a true poet, delighted to contemplate flowers—not in the light and character of mere organized but insentient beings, but as possessing a sentient principle, not less real or identifying in its character than the mysterious but strongly distinguishing faculty of instinct in the human soul. Hence his beautiful theory of the *"Loves of the Plants"*—a theory which could have been suggested only to a mind endued with the richest elements of poesy, and vividly alive to that peculiar species of inspiration which the most hidden and recondite recesses of nature can alone afford. It is much to be regretted that botany has not been more extensively introduced into our common schools. In it the young would find a powerful induce-

ment to more extended researches, and the early formation of habits of perseverance and industry —qualities always to be appreciated in youth, and which it is not always easy to form, without the assistance of some powerfully attractive and engrossing study, which unites the rewards of pleasure with the labor of pursuit.

Flowers indicate taste, sentiment, character; they have a charming influence on young persons, as those who are reared in their midst and who engage in their cultivation, are quite likely to be truthful, gentle and sincere.

See in what glowing numbers Dr. DARWIN wrote upon his favorite topic, *the Flowers*. How closely he must have observed them, and what joy his rambles among the flowers of the fields, and that minute observation, must have afforded him.

"But thou whose mind the soul-attempered ray
Of taste and virtue lights with purer day;
Whose finer sense with soft vibration owns
With sweet responsive sympathy of tones;
So the fair flower expands its lucid form
To meet the sun, and shuts it to the storm;
For thee my borders nurse the fragrant wreath,
My fountains murmur, and my zephyrs breathe;
Slow slides the painted snail, the gilded fly
Smooths his fine down, to charm thy curious eye;
On twinkling fins my pearly pinions play,
Or win with sinuous train their trackless way;
My plumy pairs in gay embroidery dressed,
Form with ingenious bill the pencile nest,
To love's sweet notes attune the listening dell,
And echo sounds her soft symphonious shell."

For the New England Farmer.

HARD TIMES.

"Hard times"—nothing has been heard scarcely for the past six months but "hard times"—and to many, the expression has a feeling meaning to it; but to you, brother farmers, what care you for hard times, so far as all the essentials of a good living are concerned? There may be a "panic" among money-lenders, note-shavers, &c.; there may be a "crisis" among traders, merchants and manufacturers; but if you are a farmer, such as I often picture to myself, and such an one as I have seen in my day, you will care for "none of these things," any further than your sympathies are called forth by the wants, misfortunes and sufferings of your fellow-men. Yours is a calling instituted by the Great Former of all things, and you have only to obey the laws which He has given you, and the "profits" are seen; there can be no mistake here. Truly, there is no calling, no speculation, no venture, no splendid operation that can compare with yours; the croaking and preaching of the idle and lazy to the contrary, notwithstanding. Hard and severe toil may be yours, but do they not bring sound health and a good digestion? By some ignorant and foolish-minded persons, your business, I know, is called low and vulgar—but I tell you, it is the business of Heaven; it brings you in direct communion with "nature and nature's God," and there can be nothing low or vulgar in this.

Shame on the stupids that know no better, and can see nothing beautiful, and to admire, in the occupations of the farmer. Such a soul must have a body more simple than the zoophite, and it would need no miscroscope to show the structure of such persons. Heed them not, but go forward and upward in your nobler and more elevating work, remembering that the promise of seed-time and harvest is yours, the beauty and sublimity of nature are yours, health, and, I hope, contentment are yours, the noblest of all that constitutes manhood are yours; and if the blessings, opportunities and privileges of life which God has given you are rightly improved, when you are called to the judgment to render your account of life's farming, an eternity of happiness is yours. All honor, then, to the worthy, independent farmer! NORFOLK.

King Oak Hill, 1858.

WAIFS FROM OVER THE WATERS.

SANDWICH ISLANDS—SUGAR CANE—APPLES—BANANAS—SWEET POTATOES.

We have been favored by the Rev. R. W. FULLER, of Lempster, N. H., with the following extracts of a letter from that far distant and interesting group, the Sandwich Islands.

In a line from your office, received last July, a desire was expressed for information concerning the fate of the *China sugar cane seed*, which I ordered for my brother, Josiah Fuller, at Honolulu, Sandwich Islands; and "the results of the experiments" with it there. My brother informed me that "the seed came safely to hand, in good order, with the pamphlet," &c. In regard to the production he writes,—"We look with much contempt upon the grass as a sugar-producing plant, in this country, where the real sugar cane produces three tons of sugar to the acre. But it is undoubtedly of the greatest value as fodder for animals. I have a small patch in my garden, from which I feed my cow. In three days after I began to give her about 25 pounds of the suckers, she increased her milk more than a quart a day."

The following brief extract from one of his letters, concerning the productions and fertility of those islands, may not be uninteresting to the readers of the *Farmer*. At the time this was written he had recently purchased and taken possession of a pleasant residence in a valley about two miles from the city, for the health of his family.

"We enjoy our valley residence very much,—have fruit and vegetables of our own,—have not been obliged to buy any vegetables except Irish potatoes for months. Had two apples on one of our little trees. One came to perfection and was a delicious fruit; the other was blown off by the wind, before it ripened. I mention this because it is something remarkable here. One of my bananas, only seven months from planting, has a large bunch of 100 bananas upon it and is a magnificent plant, about 12 feet high. The fruit will be ripe in a month. I have about 200 plants growing. There is no check to the growth of our plants, except the dry weather which we sometimes experience.

My sweet potato patch—one-fifth of an acre—produced about 60 barrels of potatoes. We have

been supplied for the last four months, and supplied several families, and sent 4000 pounds to San Francisco market. The second crop will be nearly as large. We do not pull up the vines, but take out the full sized potatoes and cover the roots. The potatoes keep growing, and in good soil, produce crop after crop to one planting. We can keep constantly digging for our own use from the time the potatoes are first ripe, (four or five months from planting) through the year. *One of my potatoes weighed eleven and one-half pounds!* Would be glad could I send you a bag *by telegraph.*" R. W. F.

For the New England Farmer.

STEAM PLOWS.—[CONTINUED.]

BY H. F. FRENCH.

BOYDELL'S PATENT TRACTION ENGINE.

This engine, as exhibited at Salisbury, was operated to draw six plows, opening six furrows at one passage across the field. It is distinguished from the other steam plows that have been mentioned by being worked by a locomotive instead of a stationary engine, which walks over the earth like some huge animal, puffing, and snorting, and taking along its six plows, with no apparent consciousness of effort. It possesses another peculiarity—that of laying down an endless railway track for its wheels to run upon, and taking it up as it proceeds. Attached to the wheels of the engine are large, flat blocks, six to each wheel, like rackets on a horse, to keep him from sinking in soft ground, which are laid down in turn by the wheel in its revolution, and on which the iron rim of the wheel runs. This engine walks about in a very intelligent sort of way, comes on to the field from a common road, drawing its tender with coal and water, and even carries the extra clothing and dinner of the laborers. It turns readily at the end of the furrow, stalks off to its water-tank when it is thirsty, and helps itself to water, and when it is hungry or fatigued goes for its own coal for refreshment. It is claimed that the same engine can draw your timber to market or the mill, upon common roads, haul in your hay and grain, work your threshing machine, and in short do most of the work of the farm instead of horses. This machine was not, at Salisbury, doing so good plowing as Fowler's, but the quality of the work is not, at present, of much importance. It is not a question of mere plowing, it is a question as to the best mode of applying the power of the steam engine, whether as a stationary or locomotive engine; for it is obvious enough that when we have once found a convenient and economical power, plows, harrows, digging machines, or anything else may be worked by it. Boydell's engine is guided by a driver, who sits on the forward part, while the engineer rides like a footman behind. Three double plows were at Salisbury attached to it by chains, and these were held by three men, who walked, following and holding the plows in the usual manner. Many of the objections to the stationary engine are obviated by this invention. No horses are required to move it from place to place, or to draw its supply of fuel and water. The cumbrous "anchor," with the long ropes, used by Fowler, are here dispensed with, and if the adjustment of the plows as used by Fowler is found most convenient, there is nothing to prevent its adoption, and the drawing of his plows, with this locomotive engine. The following extract from *The Railway Record* of June 20, 1857, may be interesting, as showing the practical working of this engine, and the probability of its application to agricultural uses:

"We publish to-day the journal of the trial of Mr. Boydell's Traction Engine, on its endless railway, from Thetford in Norfolk to London, a distance of about eighty-five miles, with a train of carriages, containing about seventeen tons of goods, which it brought up, upon the ordinary road, at the rate of three and a half miles per hour. The train was ninety-five feet in length, and the engine twenty-seven, and the gradual ascent in many parts was one in fifteen, and at various points the road was newly laid with rough flint and gravel. We are so satisfied that it is only necessary for the actual performances of this engine to be generally known to lead to its adoption in localities where the cost of constructing a level locomotive line would be too great, that we especially desire that the "journal of the trial between Thetford and London" should be carefully read by all practical men. Hitherto the traction engine has been better known in connection with the agricultural interest, but here we have its application to the traction of merchandise on common roads."

All the steam plows that have thus far been described, are constructed upon the idea that the old principle of the plow which shall turn a furrow of a few inches, subverting the soil, and preparing it for more perfect tillage by means of harrows and the like, should be employed. Yet everybody admits that spade-cultivation is far more perfect than that by the plow, and the fact that we never regard the soil as properly prepared for the seed by the plow alone, indicates pretty strongly that some more thorough operation than mere plowing is desirable in any implement moved by steam.

In the progress of all arts and sciences it is observable how principles at one time deemed most vital, come afterwards to be regarded as of secondary importance, and still later again assert their original claim to attention. Pulverization of the soil was more than a century ago advocated by Jethro Tull as the one essential to good husbandry, and he even regarded manure as valuable only as assisting to pulverize the soil, by fermentation. In later years chemistry has as-

sumed a conspicuous position in agriculture, and many have been inclined to regard more the constituent elements of plants and of artificial manures than the mechanical condition of the soil; like quack doctors, whose attention is so much occupied by their specifics that they entirely overlook the condition of their patients.

But now, after the practical failure of the theories of some distinguished chemists, agriculturists are again disposed to regard the physical condition of the soil as of primary importance, and the operations of draining and subsoiling, and otherwise opening a greater depth of soil to the action of the atmosphere and to the roots of the plant, engage the attention of the farmer. As land becomes more valuable it is found more convenient to add another seed bed to the field by preparing it *under* the shallow furrow turned by our fathers, rather than by annexing our neighbor's farm, in the covetous desire to possess all the land that adjoins our own. And so we are looking for more power to work our land deeper and to pulverize it more thoroughly. In England four or five plowings are considered essential to preparation for a good crop of turnips. In America, where labor is more costly and products usually cheaper, we the more need some new aids to our husbandry. Livy says that Romulus, in his distribution of the land, allotted two acres to each citizen, and that after the expulsion of the kings it was increased to seven. Columella tells us that the patrimonial estate on which Cincinnatus employed himself consisted of *four acres!* Yet we, whose single farms are larger than the city of Rome, with her seven hills, are plodding along, bound to the old notion that the plow used by the Romans, or at least its principles of operation, must be forever preserved. Every one knows how much better is the preparation of the garden by forking up and raking, than by turning with the plow and harrowing; and the implement desired now, in place of the plow, is a forking or digging machine that shall at one operation stir the ground to sufficient depth, leaving it as nearly as possible in the condition of a garden bed, prepared with a fork. Such a machine has been attempted in France.

THE FRENCH STEAM PLOW OR CULTIVATOR.

In a walk near Paris last July, I accidentally came upon a steam cultivator or digging machine in full operation. It was a locomotive engine, with, I think, twelve spades or forks, working in pairs, on bent axles, from which the spades, if they may be so called, projected at right angles. My impression is that each pair of spades struck the ground and entered it separately, each of the six pairs successively doing its work, as the locomotive traversed the ground, and thus forking up the soil to the depth of six or twelve inches, at the will of the operator, and four and a half feet wide. The machine was under examination by some commission, at the time, and I was informed that no report had yet been made upon it, and no patent secured, and that no description or drawing of it could be obtained. I took a great deal of pains afterwards to obtain further information; and from my inability to do so, inferred that there were reasons why the inventor desired at present, that his machine should not be made public. I was told upon the ground, that the engine was only of three horse power, but its performance indicated far more. It moved upon broad wheels, however, over the soft ground which had been before stirred by it, and turned without difficulty, at the end of the furrow. The spades, I think, were upon three or more independent axles, and worked between the wheels of the engine. Doubtless the invention will soon be made public, and the full description of it given to the world. With my very limited knowledge of machinery, and my inability to converse on a technical subject in the French language, I could not understand its details, and find it impossible to convey more than a general impression of the working of this machine.—Steam digging machines constructed with spades or teeth set in a cylinder have been before attempted. The great obstacle to their success has been found in the fact, that the moist earth clogs the teeth, and fills the spaces between them. In the French machine, this objection appeared to be obviated by the arrangement of the teeth or spades, which were curved like the nails of a mole, upon several small axles.

No steam plow that has come under my notice appears so likely to prove of practical utility as this French machine. Two points seem to be established, that the steam cultivator must be a locomotive, and that its operation must be not that of plowing, but of spading or digging, or possibly of stirring merely, by drawing through the soil a set of teeth, in the manner of the subsoil plow, or of the English scarifier.

That such an implement will, upon the broad fields of the West, if not elsewhere, soon be seen in common use cannot be doubted. To see clearly, as all must see, the necessity for such an improvement, and at the same time, to have before us so many practical suggestions for its introduction, and to doubt of its ultimate success, were to set narrow bounds to human ingenuity, and to discard our belief in human progress.

CRANBERRIES.—Persons wishing to engage extensively in the culture of cranberries, may find it to their advantage to correspond with WINSLOW ROBERTS, Esq., at Brooks, Maine.

THE PHILOSOPHY OF BATHING.

Once a week is often enough for a decent white man to wash himself all over; and whether in summer or winter, that ought to be done with soap, warm water and a hog's-hair brush, in a room showing at least 70° Fahrenheit.

Baths should be taken early in the morning, for it is then that the system possesses the power of re-action in the highest degree. Any kind of bath is dangerous soon after a meal, or soon after fatiguing exercise. No man or woman should take a bath at the close of the day, unless by the advice of the family physician. Many a man, in attempting to cheat his doctor out of a fee, has cheated himself out of his life; aye, it is heedless and carelessly done every day.

The best, safest, cheapest and most universally accessible mode of keeping the surface of the body clean, besides the once a week washing with soap and warm water, is as follows:

As soon as you get out of bed in the morning, wash your face, hands, neck and breast; then, in the same basin of water, put your feet at once for about a minute, rubbing them briskly all the time; then with the towel which has been dampened by wiping the face, etc., wipe the entire body well, fast and hard—the mouth shut, lungs inflated, breast projecting. Let the whole thing be done quick—say within five minutes.

At night, when you go to bed, and if you get out of bed during the night, or when you find yourself wakeful or restless, spend from two to five minutes in rubbing your whole body with your hands, as far as you can reach in every direction. This has a tendency to preserve that softness and mobility of skin which is essential to health, and which too frequent washings will destroy.

That precautions are necessary in connexion with the bath-room, is impressively signified in the death of an American lady of refinement and position, lately, after taking a bath soon after dinner; of Surgeon Hume, while alone, in a warm bath, and of an eminent New Yorker, under similar circumstances, all within a year.—*Hall's Journal of Health.*

For the New England Farmer.

SPRING AND THE BIRDS.

How many grand intentions had the Supreme Author of nature in view when He created the creatures and things that people and comprise the great universe. Among the many things given to cheer the heart of man, let us notice the birds whose language is for the most part exceedingly musical; tranquillizing, rather than disturbing, our feelings, and I might add, spiritualizing them, as we behold the return of pleasure and plenteousness that surround us. In the spring-season of praise what harmony and consistency there is in the general order of nature; at its first return, some fearless little songster announces it as the morning of the year, and as it advances, what feelings of inspiring pleasure it excites. The woods put forth their green leaves, the orchards their fragrant blossoms, and the earth its flowers, while one by one, or pair by pair, or in flocks, the birds arrive, filling the great orchestra—arranging themselves in the groves, the thickets and the fields, as their habits of life require; everything appears beautiful, and as the morning of each day breaks, the beauty of the scene is heightened; the lark rises in the first feeble beams of morning twilight, and soars to meet the coming sun, when, with open beak, he proclaims the advent of a new-born day; a thousand warblers listen to the strain, and ere the sun has made his appearance, every bush and tree is vocal with the sweetest music, while the vigorous song of the bob-o-link, the measured and varied notes of the robin and cat-bird, accompany us through the day.

Spring passes,—and summer begins with scenes as strikingly illustrative. In this season there is no want of the beautiful, the gentle, or the lovely; the gaiety of forest, field and mountain; the mild sky without a cloud of storm, breathes its soft winds, while the sun, with its warm beams, puts the earth in its gayest attire; there is perfect consistency also in which nature has directed the birds of song; now, as though it was contrived, the thrush takes the lead, whose plaintive, mellow notes more sweetly accord with the stillness of the morning and evening hour, while the martin and the swallow, with their easy flight and peculiarly delicate notes, cheer us through the day. A. F.

Danvers-port, April 5, 1858.

For the New England Farmer.

PUMPKIN-SQUASHES!

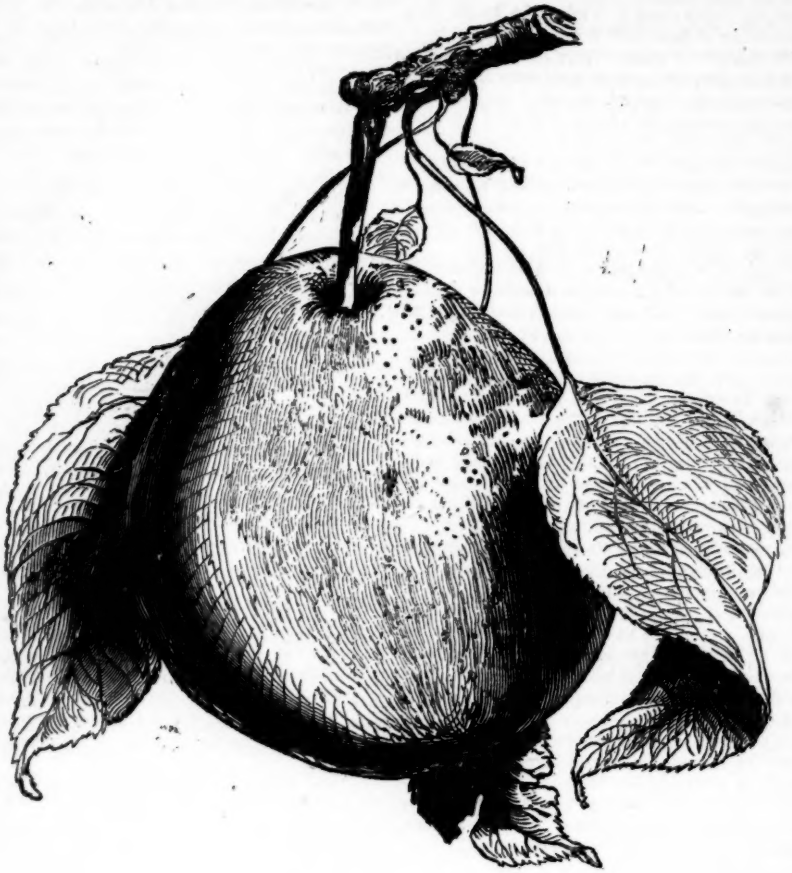
Your correspondent "Essex," in the January number of the *Farmer*, speaks of the vexed question, "Will seeds taken from squashes yield pumpkins, or vice versa?" My opinion is they will not. But seeds taken from either may produce what are called in these parts *Pumpkin-Squashes!*

In the year 1856, I raised two of the finest pumpkins I ever saw, of the old-fashioned cornfield variety, from a vine which sprung up near, and partly between my summer and winter squashes, and also in the vicinity of some custard squashes. I kept one of the pumpkins until the 20th of April, and on cutting it I found it so firm, sweet and fine, that I saved all the seeds, and last year planted them, and no others. From those seeds I raised long-necked summer squashes, and custard squashes, apparently almost pure, and nearly everything else in the shape of pumpkin-squashes that can be imagined, but only two pumpkins that would ever have been suspected of having grown from the planted seeds, and those, although they resembled the parent pumpkin very closely, on being cut were found to be almost too poor to feed to the cattle, as was the product of all those seeds without regard to its outward appearance.

I would like to ask you or any of your correspondents to explain why mixing a good squash and good pumpkin is sure to spoil both? Who ever saw a good pumpkin-squash? A. M. P.

Elmwood, Cranston, March 1, 1858.

WOODLANDS.—The careful attention of the reader is called to the article on *Woodlands*, in another column.



FLEMISH BEAUTY PEAR.

The Flemish Beauty is universally admitted, we believe, to be one of the finest pears now under cultivation. "In good soils," Downing says, "and upon open situations, the Flemish Beauty is certainly one of the most superb pears in this climate. We have seen specimens, grown on the banks of the Hudson which measured twelve inches in circumference, and were of the finest quality.

"The tree is very luxuriant, and bears early and abundantly; the young shoots upright, dark brown. It should be remarked, however, that the fruit requires to be gathered sooner than most pears, even before it parts readily from the tree. If it is then ripened in the house, it is always fine, while, if allowed to mature on the tree, it usually becomes soft, flavorless, and decays soon.

"Fruit large, obovate. Skin a little rough, the ground pale yellow, but mostly covered with marblings and patches of light russet, becoming reddish brown at maturity, on the sunny side. Stalk rather short, from an inch to an inch and a half long, and pretty deeply planted in a peculiarly narrow, round cavity. Calyx short, open, placed in a small round basin. Flesh yellowish-white, not very fine-grained, but juicy, melting, very saccharine and rich, with a slightly musky flavor." In eating last of September.

Col. Wilder says, "It is a very large, beautiful, melting pear. One of the best in cultivation. Ripe in October."

STATE BOARD OF AGRICULTURE.

The members of the Board met at the State Farm at Westboro' on Wednesday, 7th inst. Of the new members present were Messrs. G. M. ATWATER, of the Hampden Society, SIMON BROWN, of the Middlesex Society, RICHARD S. FAY, of the Massachusetts Society, CYRUS KNOX, of the Hampden East Society, and CHARLES K. TRACY, of the Berkshire Society.

In the absence of His Excellency, Gov. BANKS Col. WILDER was invited to preside, and took the chair and called attention to the recent death of Col. MOSES NEWELL, and to the propriety of noticing it before proceeding further with the business of the meeting. After paying a noble and generous tribute to his memory, he offered the following resolutions:—

Resolved, That we learn with the deepest sorrow the death of our fellow-associate, the Hon. MOSES NEWELL, of West Newbury, in the full maturity of his powers, and at a time when his services were so highly regarded and generally recognized.

Resolved, That we fully appreciate the obligations which rest upon us and upon the community to cherish his memory, for the interest which he always manifested in the cause of Agriculture in this Commonwealth, and for the uniform kindness, courtesy and benevolence of heart which endeared him to all who knew him.

Resolved, That we sympathize most deeply with the family relatives of the deceased in their severe affliction, and that the Secretary be, and he is hereby requested to furnish to them a copy of these resolutions, and to enter them upon the records of the Board.

Messrs. FAY, BROOKS and others followed with appropriate remarks, when the resolutions were unanimously adopted.

The report of the Superintending Committee of the Farm was then read to the Board. It appears from this that the immediate care of the farm for the present year is in the hands of a Superintending Committee consisting of eight persons. At this meeting they reported a general plan of operations to the Board, which was adopted. This plan had evidently been prepared with care, after a critical examination of all the resources of the farm to furnish manure, and then the amount of land to be cultivated was designated and also the kind of crop to be grown upon it. As an illustration of the plan we will take a single item, that of

"INDIAN CORN.—Four acres to be manured with 7½ cords per acre of barn-manure, worked in with cultivator; ten bushels of ashes and 100 lbs. of plaster to be added at first hoeing. Alternate rows throughout the whole field planted in hills, and drill three feet apart. Hills three feet apart in the row, four plants to be left in the hill, and the plants left nine inches apart in the drills. The seeds to be at exact distances in the drills, and leave the same number of plants in a row of drills as a row of hills."

This will give the reader an idea of the systematic plan which is laid down for the present management of the crops. The arrangements seem to us well considered and judicious, and if faithfully carried out, will result in rich harvests, and many valuable facts which must be of importance to farmers in every part of the State.

After the reading of the report and some discussion upon its details, the Board proceeded to elect two members of the Superintending Committee to fill the vacancies occasioned by the death of Col. Newell, and the absence of Mr. Tower, of Berkshire county, when SIMON BROWN, of Middlesex, and JOSIAH WHITE, of Worcester, were chosen.

Voted, To award to J. B. HULL, of Stockbridge, a first premium of $10, for the best acre of carrots, a sample of which was presented at the State Fair.

Voted, That it is expedient to hold the second State Fair in the city of Springfield, in 1860, provided a satisfactory guarantee fund is secured.

For the New England Farmer.

RECLAMATION OF LIGHT LANDS.

Thank you, Mr. Editor, for your practical suggestions on this subject. They strike me as pat to the purpose. The renovating power grows upon the land itself; this is as it should be. If the straw, strewed in the furrows, can be made to decay before the coming season, so that the land can be thoroughly pulverized, and the decayed vegetable matter intermingled, this meets my notions. But your experience is better than all theories. A continued course of like culture for *half a dozen years* will thus place barren plains in creditable condition. This is what is wanted, a self-renovating power upon our fields. Such a power, rightly understood and properly used, would do more towards restoring the fertility of our farms than all the deposits of all the fishes and birds on the Pacific. What is wanted in farming to advantage is the power to use the resources at command in the best manner. Never borrow of a neighbor when you can get along tolerably without borrowing. Never bring fertilizers from afar when they can be had near by. There is nothing like *trying*. Many a game has been lost for want of effort. We have a fine opportunity to apply your recommendation on our county farm, and I hope you will ere long allow us the privilege of your personal inspection of it.

April 12, 1858. INQUIRER.

SHEEP AND DOGS.—An exchange paper says, that "fourteen farmers of Stockbridge, Mass., within the past five years, have suffered the loss, by dogs, of 295 sheep, valued at $1025. One farmer alone computes his killed and injured animals at 177, and their value at $450. Some of the sheep were of choice varieties, and valued at from $5 to $20 per head." We doubt not that of many another town in this State and Massachusetts, a worse story may be told.

THE SKIN THE SEAT OF PAIN.

The same Infinite Wisdom which has contrived pain for our protection has also distributed it in a manner which causes it to fulfil its defensive purposes with the least suffering to its subjects. The chapters which Sir Charles Bell devoted to this question in his work on the "Hand" are alone, from their originality, and the striking evidence they afford of design, worth all the rest of the Bridgewater Treatises. The skin is the advanced guard through which every injury to the other parts must make its way. The skin, therefore, required to be the seat of a peculiar sensibility both for its own security and to impel us to flinch from the violence which would hurt the flesh beneath. Forming our notions of pain from what we feel at the surface, we imbibe the idea that the deeper the wound the more severe would be the suffering, but this, says Sir Charles Bell, is delusive, and contrary to the fact. The surgeon, he adds, who makes use of the knife, informs the patient that the worst is over when the skin is passed, and if, in the progress of the operation, it is found necessary to extend the outer incision, the return to the skin proves far more trying than the original cut, from the contrast which it presents to the comparative insensibility of the interior. The muscle is protected not by its own tenderness, which is by no means acute, but by the tenderness of its superficial covering, "which affords," says Sir Charles, "a more effectual defence than if our bodies were clothed with the hide of a rhinoceros." To have endowed the delicate internal textures with an exquisite susceptibility to the gash from a knife, or a blow from a stick, would have been superfluous torture. The end is effectually attained by spreading over them a thin layer of highly sensitive skin, which is too intolerant of cuts or bruises to allow any harm to approach it, which it is in our power to avert. In addition to the protection which is thus provided against occasional dangers, the skin, by its sensibility, is essential to our existence under the hourly conditions of life. It is the skin which acts as a thermometer to tell us whether the temperature is suited to our organization, and warns us alike to shun pernicious extremes of heat and cold. It is the skin again which prompts the instinctive restlessness that preserves the entire frame from decay. A paralytic patient must be supported upon soft pillows, and his position frequently changed by the nurse, or the uninterrupted pressure upon the same surface stops the flow of the blood, of which the consequence is the speedy destruction of the part, mortification, and death. When Sir Charles Bell called the attention of his audience to this fact, in a lecture delivered before the College of Surgeons, he bid them observe how often, as they listened to him, they had moved upon their seats that they might shift the weight of their bodies, and relieve the portions which were beginning to be cramped. "Were you constrained," he said, "to retain one position during the whole hour, you would rise stiff and lame." Even in the unconsciousness of slumber the contrivance continues to act, and, were it otherwise, sleep instead of being "nature's sweet restorer," would derange the circulation and cripple our frames.

Not only have different parts of the system sensibilities which differ in degree, but sensibilities which differ altogether in kind, so that while both shall be acutely alive to their appropriate stimulus, one or either may be dead to the application which rouses and tortures the other. "A man who had his finger torn off," writes Sir Charles Bell, in his "Animal Mechanics," "so as to hang by the tendon only, came to a pupil of Dr. Hunter. I shall now see, said the surgeon, whether this man has any sensibility in his tendon. He laid a cord along the finger, and, blindfolding the patient, cut across the tendon. Tell me, he asked, what I have cut across? Why, the cord, to be sure, was the answer." The tendon was as insensible as the string itself. Further experiments have shown that the tendons of the muscles, the ligament which hold together the joints, the cartilages which act as a pad to the extremities of the bones where they work upon one another, feel neither cuts nor burns. But there is a very different result if they are submitted to stretching, laceration, and concussion. Then they raise the warning voice of pain, and obtuse to what might seem a more agonizing species of injury, they are intolerant of the less. The reason is obvious. The skin is the fence to the inner membranes from the first class of evils, but if the skin is to have the play and power of adaptation which is essential to its functions, its suppleness would be too great to be a check upon the movements, which affect the cartilages, the ligaments and the tendons. These consequently are made impatient of concussion, of tearing, and of stretching, that we might not leap from heights, run with violence, or twist our joints with a force inconsistent with the strength of the human fabric. The pain of a sprained ancle shows how sufficient is the punishment to put a check upon any excesses of the kind. Exchange the sensibilities, confer upon the membranes which are interposed between the joints, or which tie them together, the same feelings both in kind and degree which belong to the skin, and the common movements of the body, or even the weight of one foot upon another, would have been attended, says Sir Charles Bell, with as much suffering as we experience when we walk upon an inflamed limb.—*London Quarterly Review.*

THE SEASON.

The winter just passed all along the Atlantic sea-board, and extending into Vermont, has been remarkable for its temperate character and the absence of snow and rain.

On the *second* of February, there were copious rains which filled the streams, and partially soaked the ground. These were succeeded by warm suns and mild winds, so that on the *fifth* we saw grass growing on the south side of buildings which had attained a length of more than six inches, and had all the freshness of grass in June.

The next rain which fell in this region was on the 21*st of March*, there being slight showers only, through a portion of the day, and no other rain fell during the entire month. March was remarkable, too, for the absence of the usual high

winds which herald in the spring, and for that blustering activity which has given the first month of spring no very enviable character. The last days of this month were sunny and genial, and bluebirds, robins, blackbirds white-belly swallows, song-sparrows and meadow-larks appeared.

Our usual winter birds, however, scarcely showed themselves at all,—there not being half as many seen as during the winters that are altogether more inclement.

April came in warm, with soft, mild winds, with streams and springs remarkably low and the earth unusually dry. Farmers commenced plowing in its first week, and more farm-work had been accomplished before the 10th than was done last year by the 20th, or perhaps the 25th. The first rain in this month fell on the 9th, which at once put a new aspect on the face of the earth—a lively green taking the place of the brown herbage which had so long met the eye.

These April showers water the earth, already warmed by unclouded suns, and prepare it for the handiwork of the husbandman, and he will enter anew, we trust, upon his healthful and delightful employments with filial trust, with feelings of more intimate relationship with Him who orders all events, and with a higher appreciation of His ever-watchful interest in, and over us, and all our affairs. With trusting hearts and stout hands, the farmer has nothing to fear, as He who created and moves all things will send the early and the latter rain, seed-time and harvest, and whatever else that shall work together for his good.

In this trusting spirit let us turn up the fresh furrows and sow the seed in gladness, rejoicing *now*, in the pleasant things of life, and so all along the way to the ingathering of the Harvest.

MEXICAN CURE FOR HEADACHE.

Proper diet and exercise, cheerfulness of mind and agreeable social intercourse will do more towards regulating the stomach and bowels in those predisposed to this dreadful pain, than any plan of medical treatment which can be suggested. However, vinegar bandages, applied to the temples and forehead, give great relief. Mr. Thompson, a traveller in Mexico, describes an efficacious remedy used there. The head must be bent down on the side from which the pain proceeds, whilst a teaspoonful of rum, or any other spirit, is introduced into the ear. The patient should then remain quiet till the pain subsides, which is usually in three or four minutes. This I have tried myself, and derived great benefit from it on more than one occasion.

AMERICAN FARMER'S MAGAZINE.—We have just risen from the perusal of the April number of this work, by Prof. J. A. NASH, of New York, with a degree of gratification not often felt. Paper, print, doctrines, all of the highest order. He ought to have 100,000 subscribers. Why don't farmers study their own interest enough to send him 10,000 subscribers this year to begin with? Address *American Farmer's Magazine*, 7 Beekman Street, New York.

EXTRACTS AND REPLIES.

A LIVING FENCE.

I am about to burn and clear a piece of ground which will destroy the old brush fence, and now for a new and valuable one. Stones are not very plenty. The land is upon a steep side-hill, and I think of setting a row of pine trees about three feet apart, and supporting a wooden fence by the side of them for a few years until they get large enough to stop cattle; the land I intend to use as pasture. I have hundreds of young pines growing upon a pasture near by, which will have to be removed soon. What do you think of such a plan? JOHN W. NYE.

REMARKS.—If you protect the pines from the cattle until they are sufficiently large to nail a rail or strip of board against them, you will have a beautiful living fence, that will probably last a hundred years, and then furnish you or somebody else a fine lot of wood. Hope you will carry out your design.

SUPERPHOSPHATE OF LIME FOR SQUASH BUGS.

Last spring I planted a patch of marrow squashes, to try the virtue of superphosphate of lime as a preventive of the squash worm or borer, as I had failed to raise any squashes for several years on account of this destructive worm. After the seeds came up I sprinkled some of the lime on the young plants, first to keep off the small black beetle, and then to keep off the striped bug,—all of which was successful. I still put it around the roots to prevent the borer, and repeated it after each hoeing, taking care to have it encircle every stalk; when the young fruit appeared, I put it on for the last time and found that it prevented the worm or borer entirely; it also kept off the long pumpkin bug. The result was, I had a splendid crop of squashes for the first time for many years. Will others try it?

Spring Grove, 1858. S. A. SHURTLEFF.

ESSEX COUNTY FARM.

We find this farm much better than it was at first apprehended to be. We think interested motives have prompted some to give it a bad name. We find 60 acres of it to be as good as any other pasture of like extent. We find the meadow bordering on the Ipswich River to be very good of its class. It has yielded a fair crop of grass for many years, without any other dressing than the flow of the river, and we know no reason why it will not do this as long as water runs. As to the light land on the plains, it can be reclaimed by proper plowing and fertilizing. Such things have been done, and can be again. I have thought if this farm can be so managed as to regenerate itself—then will every acre of this Commonwealth be worth possessing and experiment-

ing on. But we are clearly of the opinion, that we should not be justified in expending our funds upon the farm. Look where you will, you will see examples in abundance, of money expended by *visionary farmers*, that will not be found again in their day and generation.

March, 1858.

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A FINE COW.

Mr. ISAAC DEMSEY, of this town, owns a remarkably fine cow, now eight years old, raised in the neighboring town of Middleton, of the breed common to that vicinity. She was raised by Mrs. Flint. Her product for the past year, commencing with the spring of 1857, was as follows:

Calf sold at	$11,00
291 pounds butter, at 28 cts.	81,48
50 pounds cheese, at 8 cts.	4,00
700 quarts milk, sold and used, at 5 cts.	35,00
	$131,48

COST OF KEEPING.

2 tons English hay	$30,00
Corn fodder	8,00
7½ bushels meal	7,50
Summer pasture	8,00
	$53,50
Net profit	$77,98

This cow had the small quantity of one quart of meal per day for eight months, making 7½ bushels, as will be seen by the above account, and during one week made 13¾ pounds of butter. She was milked 11½ months. Can this product be exceeded? C. P. P.

Danvers, March 16, 1858.

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SOW, AND SEVENTY-ONE PIGS!

Having often seen accounts in the *Farmer* of valuable hogs, and having seen especial notice of the "Chester County Hogs," I thought I would give you an account of a breeding sow I now own, and the return she has made me. She is three years old, weighs 500 pounds and has dropt 5 litters of pigs, as follows:

April 15, 1856	12 pigs.
September 15, 1856	13 "
April 25, 1857	12 "
September 12, 1857	17 "
March 10, 1858	17 "

Making in all 71, dropt alive, perfectly formed, healthy and pure white. Of this number, she has raised to 5 weeks of age 63, having lost a few of the two last litters by laying on them. Keeping a few of the best of each litter, I have sold the balance at $5 each.

Her breed is ½ Suffolk, ½ native, pure white, long body, small head, short neck, fine bone and square built. She is a small eater, and takes on fat easily—in fact, during the period of gestation I am troubled to keep her sufficiently lean; her pigs often weigh 350 pounds at 8 months, fed on skimmed milk, apples and pumpkins, &c., until 6 weeks previous to slaughtering, when I give them all the meal they will eat.

A neighbor has three of the litter dropt September last, which now weigh 300 pounds, and their only feed has been skimmed milk and boiled pumpkins. Truly, Sir, there is no need of sending to Chester, Penn., for a breed of pigs, when any farmer, with a little care and attention, may get up one equally good.

Groton, Ms., 1858. CALVIN BLOOD, 2*d*.

A GOOD COW.

I have a cow 6 years old in the spring of 1856. She calved June 20, 1856, calf remained 8 days; cow made 187½ pounds of butter in 175 days—had but this cow, and during this time presume we used one pint of milk per day, 87½ quarts. She gave from Dec. 13, last day of churning, to April 5, 1857, 566¼ quarts. We sold to one family 333½ quarts, at 6 cents, $20,01 Balance sold and used, at 5 cents, $16,01. Butter, 187½ pounds, at 30 cents, $56,20. Total, $92,22. All of her skim milk was given to a pig.

1857.—Calved May 13th. Sold calf 19th, from which time to January 19, 1858, 237 days, made 215½ pounds of butter. We had a larger family than in 1856, and used much more milk and cream. She was given to me when a week old by a gentleman who called her a full-blooded Ayrshire. She is entirely red, with the exception of white tip on tail, gentle and handsome. She has been well, but not extravagantly fed.

Cohasset, Mass., 1858. JOHN WILSON, JR.

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THE ERMINE.

For the information of your Harvard correspondent, Mr. SAWYER, I would say that the animal he found in his cellar was the ermine, an animal not differing much in size or form from the weasel; his color being the same in summer with the exception of his toes and the tips of his ears, which are white; in winter he is white all but the end of his tail, which is black. Their habits are like those of the weasel, and they are considered by some as a species of the same family, but by others as a distinct species. Formerly, they were seen very frequently, but I have not seen more than one or two for the last 20 years. They are deadly foes to rats, mice and squirrels, which they kill in great numbers for their blood. The fur is very valuable, and the skins sometime sell as high as $2 each. The history of this animal I think I read in *Thompson's Natural History of Vermont*, several years since. B. F. CUTTER.

Pelham, N. H., March 26, 1858.

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HOG CHOLERA.

In looking over the census of the town farm the last year, I see that a loss of $1300 is charged as accruing from this disease, all of which is alleged to have occurred in the course of a few weeks. No satisfactory explanation of this disorder has ever been given. It is conjectured that they had imbibed *strychnine* from the *whisky factories*, where they were fed when young. If such be the fatal effect on the *brute creation*, how much more powerful must be the effect on the *men* who use the *whisky itself* thus adulterated?

March, 1858. SOUTH DANVERS.

OFFICERS OF THE NORTH MIDDLESEX AGRICULTURAL SOCIETY for 1858:

TAPPAN WENTWORTH, Lowell, *President.*
J. C. BARTLETT, Chelmsford,
ELIJAH M. REED, Tewksbury,
A. L. BROOKS, Lowell,
J. B. V. COBURN, Dracut,
Vice Presidents.
S. J. VARNEY, Lowell, *Recording Secretary.*
A. R. BROWN, Lowell, *Corresponding Secretary.*
ALFRED GILMAN, Lowell, *Treasurer.*

For the New England Farmer.

A METHOD OF RAISING GRASS.

I have been reading with much pleasure, and, I think, profit, the last annual report of the Massachusetts Board of Agriculture. As I do not learn from it that any one has adopted a method of raising grass precisely like my own, I take the liberty of communicating to you my method, as well as the steps by which I arrived at it. I know very well that we are all inclined to regard our geese as the most beautiful swans, but if my ideas are worth nothing, the paper may serve to kindle your fire.

My land is a clayey loam, resting on a subsoil, the first layer of which is a mixture of clay, loam and gravel, that, brought to the surface, exposed to the frost and mixed with the surface soil and a liberal dressing of manure, makes a productive grass land. Below this, at the depth of about two feet, is a hard pan of blue clayey gravel, almost as impervious to water as a cemented cellar bottom, and this rests on the underlaying slate rock at the depth of from five to twenty-five feet. The land in no part is hilly, but has descent enough to carry off the surface water.

It came into my possession in 1851, and I cut that year about four tons of inferior hay from seven acres. The next year I sowed about half an acre with spring rye, clover, herdsgrass and redtop seed. The ground had corn and potatoes on it in 1851, and was in good condition. The summer was hot and dry. The rye did badly and the grass almost disappeared under the scorching suns of July and August. It rallied somewhat before the next summer and produced from fifteen to eighteen hundred weight of hay from the half acre.

In 1852 I had two and one-fourth acres in cultivation with corn and potatoes, on which I spread and plowed in, twenty ox-cart loads of manure, and put ten more in the hill per acre. In September, I dug the potatoes on one-fourth of an acre, spread and plowed in three loads of manure, and seeded down with herdsgrass and redtop. After the corn was harvested, I had an acre more plowed and harrowed, and about the twentieth of November, sowed half a bushel of herdsgrass and a bushel of redtop seed on it, and rolled the ground just as it froze for the winter. In the following spring, I seeded down the remaining acre with barley and a mixture of clover, herdsgrass and redtop seed. I had sixteen bushels of barley, and the grass looked finely in the autumn. The ground seeded the preceding September, although the grass suffered considerably from the winter, produced about eight hundred weight of hay and the acre sown in November a little over a ton.

In 1854 my field appeared as follows: on the quarter acre seeded in September, the herdsgrass had spread and the redtop came in so as to cover the ground well; on the acre sown in November there was a beautiful strong turf covering the whole surface, while on the acre sown with barley the winter had killed a good deal of the clover and left many spots bare, where the ground had settled below those portions covered with grass and the turf was generally broken and uneven. On the one and one-fourth acre seeded in autumn, there was about three tons of hay, and on the acre sown with barley about thirty hundred weight. After haying, I spread two hundred and fifty bushels of leached ashes on the acre and one-fourth sown in the fall.

In 1855, which was a bad hay year, I had about two and a half tons from the acre and one-fourth, and about twenty-five to thirty hundred weight from the acre sown in spring. The latter had become mostly redtop. I let it stand till the seed was ripe enough to shell out in making the hay, and in the fall, I spread two hundred bushels of leached ashes on it. This brought in considerable clover and thickened up the redtop so as to give me a very fair crop, but it has always fallen below the part sown in the autumn by ten to fifteen hundred weight per acre. These crops have mostly been sold standing on the field, the purchaser having the privilege of weighing whenever he chose to do so, rather than to take them at my estimate, and in all cases when weighed, they have exceeded my estimate.

Thus far it is evident that my experience is in favor of late fall sowing; for although the September sowing, with its extra dressing of manure, slightly exceeded the November sowing the first year, there has been no difference since. The result has been still more decidedly against raising spring grain on such land as mine. The cost of the grain sown, with the extra labor in harvesting, threshing, &c., would amount to much more than the difference in the average value of a crop of spring grain and that of an average first crop of grass, even should the land be plowed for the grass, as in the above experiment. In addition to this, if recollected that the annual grass crop, when the ground has been exhausted by ripening a grain crop, falls at least half a ton below that which follows the corn immediately, the question to my mind is settled.

At the risk of tiring your patience, I wish to give you the results of an attempt to get a large crop of grass the first year. In the spring of 1854, I had an acre by the side of the lot, on which I raised barley in 1853. It was in corn the year before, and had twenty loads of manure to the acre, one-half spread and plowed in, and the remainder in the hill. This year, 1854, I spread twenty loads per acre and plowed it in, then spread two hundred bushels of leached ashes and furrowed so deep that the corn, which was planted in drills, could be covered without raising the rows above the surface. There was compost put in the furrows equal to ten loads of manure per acre. The field was cultivated twice. The first time the ground was levelled and the weeds cut up, the second time the small stones were picked up and wheeled to the edge of the field; herdsgrass and redtop seed were sown and the ground raked over with a common hand rake, such as is used in the hay field. The labor, except picking up the stones, was just about equal to two hoeings, and the surface was left beautifully even. I had a forest of corn stalks, about two cart-loads of smutted ears, and fifty bushels of sound corn to the acre. The season was hot and dry, and in the fall, I found no grass except on a wet place, and under some large apple trees. As my ground was in fine condition and very smooth, I did not like to plow it up again until I tried some way to get it into grass. In the fall, as soon as the ground froze enough to hold the stumps of the

corn stalks firmly, I took a sharp hoe and cut them off even with the surface of the ground, raked off the rubbish and sowed half a bushel of herdsgrass and a bushel of redtop seed on the acre. The next spring as soon as the weather became warm enough, the grass came up beautifully over the whole piece. The summer was wet and warm, and I cut more than a ton and a half per acre for the first crop. In 1856 and 1857 I had three tons per acre each year for the first crop, and rowen enough to make the whole amount in the two years not much short of seven and a half tons.

About the middle of June, 1854, I sowed a quarter of an acre with oats and grass seed, and mowed the oats for fodder while green. The grass on part failed from the hot, dry weather. I went over the ground in November and sowed the vacant spots with grass seed, and it came up and grew perfectly well the next spring.

In justice to summer sowing among corn, I will say that I tried it again in 1855, which was a wet season, and it did well and gave a larger first crop than I generally get from late fall sowing.

Early fall sowing did well in the instance in which I tried it, but I have not repeated the experiment, as I observe on the land of my neighbors that grass sown in this way often suffers from the winter frosts, while I have never known late fall sowing to fail. I find it very little extra labor, if I begin right in the spring, to have my ground all ready to seed down at the setting in of winter. I proceed as detailed in my experiment on my corn field in 1854, except I do not sow any grass seed *till I am confident it will not vegetate till the next spring*, say from the twentieth of November to the setting in of winter. I have pieces of late sown grass, which have been mown one, two, three and five years respectively. The average results have been about twenty-five hundred weight for the first crop per acre, and including rowen three tons per year afterwards.

How long they will hold out time must determine. As my land was not exhausted by spring grain and I do not fall feed at all, or cut the rowen when it can be safely avoided, I expect a fair yield for several years to come. I prefer November seeding, because I believe there is an absolute certainty that every good seed sown in this way will vegetate the next spring, and will have the whole season to grow before the winter frosts. Even on land where the water stood for weeks it did well. I prefer it for the economy of this method. If the corn is planted in drills as above described, I believe the increased product will fully compensate for the extra work, and the cutting off the stumps of the corn stalks and raking off the rubbish are much less labor than plowing and again levelling the ground, as must be done for a grain crop. I should not expect the same advantages on sandy or gravelly land as on clayey and level wet land, which are much more liable to have their crops winter-killed, and on steep hill sides it would not be admissible on account of the washing of the winter rains.

There are three things which I regard as indispensable to the successful culture of grass. The first is to put the land in good condition by thorough tillage and a liberal application of fertilizers; the second, to get a good healthy set of grass roots that will cover the ground entirely; the third not to exhaust both the grass and the land by fall feeding or cutting the second crop, unless it is so luxuriant as to endanger the roots of the grass. By observing these things strictly, I believe it will be found that a heavy yield of grass is not an uncertain or doubtful result.

M. D.

For the New England Farmer.

PEARS UPON QUINCE STOCKS.

Where is the benefit of thus cultivating? At the late meeting of legislative farmers, (who are of course among the best experienced,) I understood Mr. Earle, of Worcester, and Mr. Lake, of Essex, to say, when they transplanted the pear which had been grafted upon the quince, they were careful to set the trees so that the place of junction should be several inches below the surface of the ground, so that the roots should start anew from the pear stock, and the tree be mainly supported by such roots. Why, then, graft on the quince at all? Is it not quite easy to raise from the seed as many young pear trees as may be wanted? Can there be any benefit, in interposing the dwarf quince, when much more substantial and beautiful wood can be grown from the pear seeds alone?

Why not engraft the pear on the apple stock? Can any one say that the stock in the least degree modifies the quality of the fruit? From what we have learned, we presume pears on quince stocks will fruit earlier, than otherwise; and we believe also they will decay earlier. I throw out these inquiries to elicit information, and not to communicate it. I am not convinced that there is any considerable benefit accruing from the growing of pears upon the little quince. Merely because they can be made thus to grow, is no reason why they should be so grown. Essex.

April, 1858.

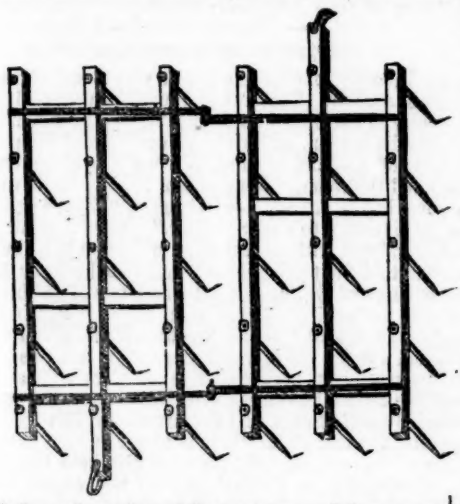
Clouds Outside, Sunshine Inside our Homes.—Whether men do business and have dealings with others in city or in country, there will be, occasionally, unpleasant occurrences, causing sourness, irritation or discomposure, to a greater or less degree. Temper will be ruffled by losses, disappointments and dealings with the stupid and dishonest. If we could leave all these trials and the irritation they may have produced outside when we return to our homes, and make resolute efforts to have nothing but peace, love and sunshine inside our homes, the comfort of ourselves, our wives and our children would be much promoted. To accomplish this may be difficult, but it is correspondingly desirable. If we make a determined effort, it will not always be in vain. Success will occasionally reward us, and encourage us by its sweet satisfaction to renewed efforts. And when success becomes habitual, how much happier will be our homes! For the man who goes home sour and irritable, with a cloud upon his countenance, is sure to sadden and perhaps to sour the hearts of his wife and children. Whereas, he that succeeds in leaving all these outside, will make his coming welcome, and his home a scene of smiles and sunshine.—*Country Gent.*

IMPROVED HINGE HARROW.

The true work which a harrow should perform is generally quite imperfectly understood. Its principle office is to pulverize,—to make the soil finer and lighter than the plow leaves it, as this condition of the soil is not only important in order to facilitate labor in the cultivation of crops, but important in order to bring the soil into that friable condition, which will attract and readily receive those atmospherical influences upon which plants greatly depend for their growth. Levelling with the harrow is of secondary consequence.

A light harrow, with rather long, slender and smooth teeth, drawn quickly through the soil, will do *more* and *better* work, than a heavy one moved slowly.

The harrow represented below may be folded double, or separated into two parts, for the convenience of transportation or other purpose. Either half may be lifted for any purpose while the implement is in motion; and the easy and



independent play of the parts up and down upon the hinges, enables the instrument to adapt itself to the surface of the ground in all places, so that whether going through hollows, or over knolls and ridges, it is always at work, and every tooth has an operation upon the soil. There are thirty teeth in the harrow, and yet they stand equi-distant and wide apart each way, so that while from their number and arrangement the ground is worked fine, they are not liable to clog. This harrow is made heavy for rough land and the pulverizing of sod furrows, or light for grain and grass seed. It is a very light, pretty harrow for one horse, when made of bars 2½ inches square, with teeth of half-inch steel; and thus made, and carrying a breadth of five feet, one horse will harrow as much ground in a day with it, as is usually accomplished by two horses. It is made to draw either end forward; and when the teeth become dull by working in one direction forward, the team may be hitched to the other end, and they are sharp again.

This harrow was "got up" by Mr. HOLBROOK, our Associate Editor, who has given the subject his usual discriminating attention, and finds upon practice with it, that it operates better than any other he has used.

EXTRACTS AND REPLIES.

GRAFTING CHERRIES, PLUMS AND PEACHES.

Will you inform me of the best time of the year for grafting stone fruit, such as cherries, plums and peaches; and also if peaches grafted into the wild cherry will do well?

PLUM AND PEACH.

Osterville, March, 1858.

REMARKS.—Cherries should be grafted as early in April as the weather will allow it to be done comfortably to the grafter, and in which the wax may be handled. Plums should come next, and then peaches—but all some time in April. We have never worked the peach on the wild cherry, and do not know how it would succeed.

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RECIPE FOR MAKING SAP BEER.

Take one pound of good hops, put them in a clean barrel, and take it to the orchard; fill the barrel with sap and set it away for use; in about two weeks it will be fit for drinking, and will remain good till June.

THOMAS G. HOLBROOK.

Manchester, Vt., 1858.

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TARRED PAPER FOR ROOFS.

"A. S." may find plenty of tarred paper for roofs or sides of buildings at the paper store of Messrs. CONANT & HOOD, 141 Blackstone Street, Boston. It is sold for about $3,50 per 100 lbs. One pound will cover about ten square feet.

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WHERE MEATS AND COOKS COME FROM.

There is a satisfaction in the fact that your literary correspondent, "W. A. A.," applies to us farmers to instruct him as to the origin of the lines which he misquotes; but he is right, Mr. Editor, for I can assure him the sons and daughters of our farmers are as competent to answer his inquiry as those who have learned more and know less.

If "W. A. A." will read Dr. Oliver Goldsmith's "Retaliation," he will be amused if not instructed; and he will find in David Garrick's reply, among other caustic things, the following

JEU D'ESPRIT.

"Are these the choice dishes the doctor has sent us?
Is this the great poet whose works so content us?
This Goldsmith's fine feast who has written fine books?
Heaven sends us good meat, but the devil sends cooks."

Framingham, March 30, 1858. J. W. C.

See p. 168.

MILL FOR GRINDING SCRAP CAKES.

I am in want of a mill or some kind of a machine for granulating the hard cakes made from beef scraps. Where can I get one, and at what cost? SUBSCRIBER.

REMARKS.—We do not know of any such mill.

For the New England Farmer.

FIFTH ANNUAL REPORT OF THE MASS. BOARD OF AGRICULTURE.

I have glanced my eye over this paper of about 300 pages, and find it truly practical and instructive. As was to be expected, much of it is filled with the details of the Exhibition, held under the supervision of the Board. This is as it should be. Such an exhibition should be a presentation of the best products of the Commonwealth—and such a Report should be a fair view of what was presented. In this way alone, from year to year, can we have a correct idea of the progress made. That our agriculture is in healthy progress, no one who has carefully observed for the last thirty years can for a moment doubt. That our State has done better than any of her neighbors, I am not prepared to say. That there is room for many and greater improvements, I cannot doubt. ESSEX.

BOYS' DEPARTMENT.

MATHEMATICAL MYSTERIES.

Take a straight line one inch in length, and divide it into two equal parts or halves, divide the half into two quarters, the quarters into two eighths, the eighths into two sixteenths, and so on, continually bisecting the fraction last arrived at. It is logically obvious that, by this process of perpetual halving, we can never reach the end of the line, although its length is only one short inch. There will always remain a fraction to bisect. By increasing the number of bisections indefinitely, we can approach indefinitely near to the extremity of the line, but through all eternity we could not actually arrive at it! There is a geometrical curve called the hyperbola, which is so related to a straight line called the asymptote, that they approach each other continually and never meet.

The geometer will show you in a diagram both curve and line, not many hair breadths apart, and yet he can demonstrate, by logic the most vigorous, that the line may travel through all eternity toward the curve, and still no meeting take place between them. There is an eternal convergence across a space not broader than our pen, but no possible concurrence!

The algebraist will show you the commencement of a series of numbers, the terms of which are absolutely infinite, and yet the sum of the whole—the precise sum—may be no more than one, two, three or four. He will tell you respecting a progression beginning with unity as the first term—what the second term is, what the hundredth term is, what the hundredth-thousanth-millionth term is, what any term you please to ask him is; and he will further tell you that the whole infinitude of terms added together amounts to exactly four—no more, no less—and yet he will also tell you that eternity alone would suffice to write down the terms whose sum is really comprised in that insignificant number four!—an eternity of duration, and an innumerable host of ever busy writers!

Now the whole mystery and contradiction in these well known mathematical truths, arises from the presence of infinity. Expel that element and all mystery would vanish; retain it, and facts known to a school-boy are incomprehensible by a Newton. Newton admits them, uses them, knows them to be true, but cannot explain them—and never will be able to explain them, nor absolutely to comprehend them, even though his occupation in heaven were the study of mathematics and nothing else forever. It is a mistake to suppose that all mysteries will be solved hereafter; for every mystery of incapacity—which is the only real, ultimate incomprehensibility—must remain forever uncomprehended by the creature. No progress can elevate the finite into the infinite. Happy for us that this is so! Were it otherwise, a period in eternity might arrive when truth would be exhausted, and our felicity would be overclouded by a grief to which the weeping Alexander's was a childish sorrow.

THE BEST SCHOLAR.

In every school there is one who is called the best scholar. Teachers and pupils have no difficulty in deciding who is entitled to this honorable distinction, and when we once heard the pupils of a school exclaim, as a bright-eyed boy entered the room, "Here comes Frank; he is the best boy in school,"—we thought, "What a good introduction to a new teacher." After becoming acquainted with the scholars, we found that they had told the truth. Frank was the best boy in school, and will no doubt become one of the best men in the city. Think of it, boys. "The best boy in school." Who would not be proud of such a title? It is worth more than millions of dollars. But perhaps some scholars will say, "We can't all be the best." This is true, but you have a right to *try*, and the one who will try hardest will succeed, for there is power in that little word *try*. Frank could not be the best boy in his school if he did not try. If you cannot be the best, be careful and not be the worst. Every school has one boy who is worse than any other scholar. We pity him; we pity his parents, his brothers and sisters. What a disgraceful title—"The worst boy in school." He will no doubt become one of the worst men in the community. Let every boy who reads this resolve to be "the best boy in school."

PRACTICE AT THE BAR.—Whoever stoppeth at the *bar* of him who *bar*-ters distilled *bar*-ley, drawn from a *bar*-rel, *bar*-s himself from ever advancing at the *bar* of life. He will live like a *bar*-*bar*-ian—an outcast from civilized society—and his memory will be to him as a *bar*-bed arrow, when he thinks of the bad *bar*-gains he made when under the influence of *bar*-m. His *bar*-k will founder on the sand *bar*-s in the stream of life, and his life will be *bar*-ren of any good, in consequence of the *bar*-rier he has placed between himself and the world, and no *bar*-d will chant a *bar* at his de-*bar*-king.—*Merry's Museum.*